

Section 5

# SYGEF<sup>®</sup> Standard PVDF Piping System



# SYGEF® Standard – Product Specification

<b>Material</b>	Polyvinylidene Fluoride (PVDF)
<b>Color</b>	opaque
<b>Density</b>	~1.78 g/cm <sup>3</sup> (ISO 1183 / ASTM D792)
<b>Surface tension</b>	30–35 mJ/m <sup>2</sup>
<b>Linear expansion coefficient</b>	0.12–0.18 mm/mK (DIN 53752)
<b>E-modulus</b>	≥1700 N/mm <sup>2</sup> (EN ISO 527 / ASTM D 790)
<b>Thermal conductivity</b>	0.19 W/mK (DIN 52612)
<b>Surface resistivity</b>	5 × 10 <sup>14</sup> Ωcm (IEC 60093)
<b>Dimension</b>	d 20 (½")–d 315 (12") in accordance to ISO 10931
<b>Pressure rating</b>	Pipes/fittings: 20–110 mm PN 16 (232 PSI); 160–315 mm PN 10 (150 PSI) Valves: separate specification
<b>Temperature rating</b>	from –20 °C to 140 °C (–4 °F to 284 °F)
<b>Production</b>	Fittings/valves: injection molded Pipes: extruded and stress relieved (ISO 10931-2) Valves: injection molded (additional available oil free treated and paint compatible / silicon free)
<b>Surface finish</b>	Inner surface Ra ≤ 0.5 μm (20 μin) for injection molded and extruded components
<b>Marking</b>	All components are embossed with a permanent identification during the production process to ensure full traceability. Lot No Material Dimension Pressure Rating
<b>Testing and inspection</b> (ISO 10931)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing
<b>Approvals/conformance</b>	DIBt ASME BPE FDA CFR 21 177.2510 USP 25 class VI (physiological non-toxic) FM-4910 listing) UL 723 ASTM E-84 25/50 for building plenums for sizes 20–75 mm
<b>Welding technology</b>	BCF® Plus, bead and crevice free fusion, size d20 (½") – d110 (4") IR Plus®, infrared fusion (DVS 2207-6), size d20 (½") – d315 (12") Butt fusion (DVS 2207-15), size d20 (½") – d315 (12") Socket fusion (DVS 2207-15), size d20 (½") – d63 (2")
<b>Documentation*</b>	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1
<b>Packing**</b>	Multiple components single bagged in specified bag
<b>Labeling</b>	Brand Name Product Description Code Number Material Dimension
<b>Main applications</b>	Uses include delivery of pharmaceutical grade purified water (PW) and DI water, using hot water, steam chemical or ozone sanitization. Due to its excellent chemical resistance it is widely used in chemical distribution systems.

\* On request

\*\* Not for socket fusion products

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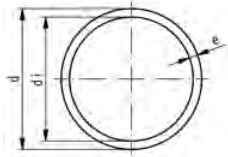


Miscellaneous

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# Pipe

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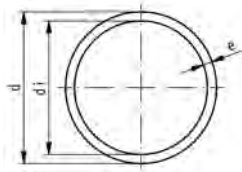
## Pipe, PN 16, PVDF-Standard 25/50

### Model:

- Material: PVDF
- Supplied in 5m (16.4 foot) length
- Certified for building air plenum according to UL 723 ASTM E-84 25/50, sizes 20-75mm

d (mm)	FM	Part No.	lbs/meter	e (mm)	di (mm)
20	BCF, IR	* 175 484 203	0.463	1.9	16.2
25	BCF, IR	* 175 484 204	0.593	1.9	21.2
32	BCF, IR	* 175 484 205	0.959	2.4	27.2
40	BCF, IR	* 175 484 206	1.241	2.4	35.2
50	BCF, IR	* 175 484 207	1.874	3.0	44.0
63	BCF, IR	* 175 484 208	2.403	3.0	57.0
75	BCF, IR	* 175 484 209	3.417	3.6	67.8

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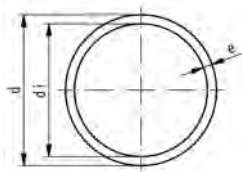
## Pipe, PN 16, PVDF-Standard

### Model:

- Material: PVDF
  - Supplied in 5m (16.4 foot) length
  - Material: PVDF
- \* on request

d (mm)	FM	Part No.	lbs/meter	e (mm)	di (mm)
90	BCF, IR	* 175 480 210	4.916	4.3	81.4
110	BCF, IR	* 175 480 211	7.341	5.3	99.4
*	250	IR	* 175 481 218	11.9	226.2
*	280	IR	* 175 481 219	13.4	253.2
*	315	IR	* 175 481 220	15.0	285.0

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## Pipe, PN 10, PVDF-Standard

### Model:

- Material: PVDF
- Supplied in 5m (16.4 foot) length

d (mm)	PN (bar)	FM	Part No.	lbs/meter	e (mm)	di (mm)
160	10	IR	* 175 480 668	10.009	4.9	150.2
200	10	IR	* 175 480 669	15.851	6.2	187.6
225	10	IR	* 175 480 670	19.731	6.9	211.2
250	10	IR	* 175 480 671	24.471	7.7	234.6
315	10	IR	* 175 480 674	38.801	9.7	295.6

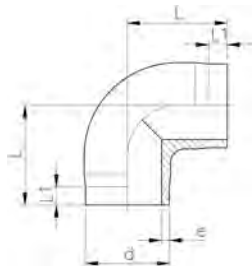
# IR Plus/BCF Plus Fusion Fittings

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## 90° Elbow, PN 16, PVDF-Standard



d (mm)	FM	Part No.	weight (kg)	e (mm)	L (mm)	L1 (mm)
20	BCF, IR	<b>735 108 606</b>	0.017	1.9	38	25
25	BCF, IR	<b>735 108 607</b>	0.023	1.9	42	26
32	BCF, IR	<b>735 108 608</b>	0.040	2.4	46	26
40	BCF, IR	<b>^ 735 108 609</b>	0.060	2.4	51	28
50	BCF, IR	<b>735 108 610</b>	0.105	3.0	58	28
63	BCF, IR	<b>735 108 611</b>	0.198	3.0	66	28

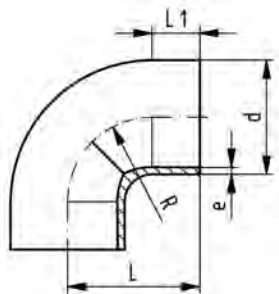


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## 90° Elbow, PN 16, PVDF-Standard

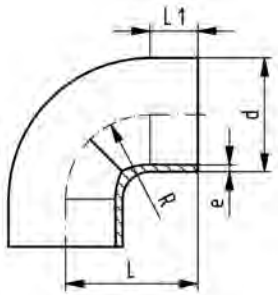


d (mm)	FM	Part No.	weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
75	BCF, IR	<b>^ 735 018 712</b>	0.243	3.6	75	23	62
90	BCF, IR	<b>735 018 713</b>	0.423	4.3	90	23	77
110	BCF, IR	<b>735 018 714</b>	0.705	5.3	110	23	98
250	IR	<b>^ 735 018 746</b>	6.536	11.9	254	48	232
280	IR	<b>735 018 747</b>	9.182	13.4	283	48	262
315	IR	<b>^ 735 018 748</b>	13.031	15.0	321	48	297



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**90° Elbow Sweep Radius, PN 10, PVDF-Standard**



d (mm)	FM	Part No.	weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
160	IR	<b>735 018 517</b>	1.540	4.9	160	33	141
200	IR	<b>735 018 519</b>	2.018	6.2	200	33	181
225	IR	<b>* 735 018 520</b>	3.952	6.9	220	33	200
250	IR	<b>735 018 521</b>	4.304	7.7	254	48	232
280	IR	<b>735 018 522</b>	6.370	8.6	283	48	262
315	IR	<b>735 018 523</b>	9.032	9.7	321	48	297

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**45° Elbow, PN 16, PVDF-Standard**



d (mm)	FM	Part No.	weight (kg)	e (mm)	L (mm)	L1 (mm)	R (mm)
20	BCF, IR	<b>735 158 606</b>	0.014	1.9	32	25	
25	BCF, IR	<b>735 158 607</b>	0.019	1.9	34	26	
32	BCF, IR	<b>735 158 608</b>	0.033	2.4	36	26	
40	BCF, IR	<b>^ 735 158 609</b>	0.042	2.4	39	28	
50	BCF, IR	<b>735 158 610</b>	0.084	3.0	42	30	
63	BCF, IR	<b>735 158 611</b>	0.121	3.0	47	31	
75	BCF, IR	<b>^ 735 158 612</b>	0.160	3.6	49	32	
90	BCF, IR	<b>735 158 613</b>	0.271	4.3	57	37	
110	BCF, IR	<b>735 158 614</b>	0.499	5.3	70	46	

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**45° Elbow, PN 10, PVDF-Standard**



d (mm)	FM	Part No.	weight (kg)	e (mm)	L (mm)	L1 (mm)
160	IR	<b>* 735 158 517</b>	0.986	4.9	100	62
200	IR	<b>* 735 158 519</b>	1.928	6.2	124	77
225	IR	<b>* 735 158 520</b>	2.732	6.9	140	88
250	IR	<b>735 158 521</b>	2.402	7.7	120	47
315	IR	<b>735 158 523</b>	4.923	9.7	147	47

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**Tee, PN 16, PVDF-Standard**



d (mm)	FM	Part No.	weight (kg)	e (mm)	L (mm)	L1 (mm)
20	BCF, IR	<b>735 208 606</b>	0.023	1.9	38	25
25	BCF, IR	<b>735 208 607</b>	0.032	1.9	42	27
32	BCF, IR	<b>735 208 608</b>	0.056	2.4	46	27
40	BCF, IR	<b>^ 735 208 609</b>	0.083	2.4	51	28
50	BCF, IR	<b>735 208 610</b>	0.156	3.0	58	28
63	BCF, IR	<b>735 208 611</b>	0.270	3.0	66	28
75	BCF, IR	<b>^ 735 208 612</b>	0.336	3.6	75	32
90	BCF, IR	<b>735 208 613</b>	0.587	4.3	90	39
110	BCF, IR	<b>735 208 614</b>	1.054	5.3	110	48

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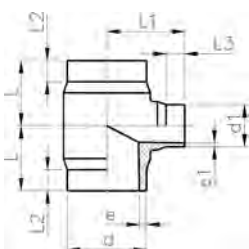
**Tee, PN 10, PVDF-Standard**



d (mm)	FM	Part No.	weight (kg)	e (mm)	L (mm)	L1 (mm)
160	IR	<b>* 735 208 517</b>	2.250	4.9	160	71
200	IR	<b>* 735 208 519</b>	4.297	6.2	200	80
225	IR	<b>* 735 208 520</b>	6.900	6.9	220	86
250	IR	<b>735 208 521</b>	6.939	7.7	223	70
315	IR	<b>735 208 523</b>	13.882	9.7	274	74

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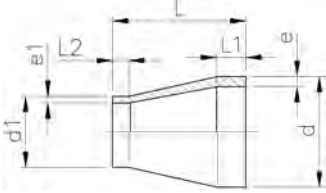
**Reducer Tee, PN 10, PVDF-Standard**



d - d1 (mm)	FM	Part No.	weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
160 - 90	IR	<b>^ 735 208 562</b>	2.300	4.9	4.3	155	130	60	25
160 - 110	IR	<b>^ 735 208 561</b>	2.300	4.9	5.3	155	130	60	25
225 - 90	IR	<b>^ 735 208 570</b>	4.400	6.9	4.3	155	160	60	25
225 - 110	IR	<b>^ 735 208 569</b>	4.286	6.9	5.3	155	160	60	25
225 - 160	IR	<b>735 208 568</b>	4.239	6.9	4.9	155	170	60	35

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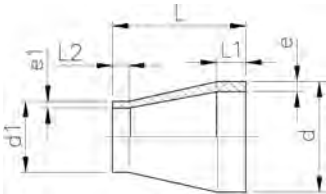
## Reducer, PN 16, PVDF-Standard



d - d1 (mm)	FM	Part No.	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
25 - 20	BCF, IR	<b>735 908 637</b>	1.9	1.9	50	22	22
32 - 20	BCF, IR	<b>735 908 642</b>	2.4	1.9	50	22	22
32 - 25	BCF, IR	<b>735 908 641</b>	2.4	1.9	50	22	22
40 - 20	BCF, IR	<b>^ 735 908 648</b>	2.4	1.9	58	22	24
40 - 25	BCF, IR	<b>^ 735 908 647</b>	2.4	1.9	55	22	24
40 - 32	BCF, IR	<b>^ 735 908 646</b>	2.4	2.4	55	22	24
50 - 25	BCF, IR	<b>735 908 654</b>	3.0	1.9	60	22	25
50 - 32	BCF, IR	<b>735 908 653</b>	3.0	2.4	60	22	25
50 - 40	BCF, IR	<b>^ 735 908 652</b>	3.0	2.4	60	22	25
63 - 32	BCF, IR	<b>735 908 660</b>	3.0	2.4	65	22	25
63 - 40	BCF, IR	<b>^ 735 908 659</b>	3.0	2.4	65	22	25
63 - 50	BCF, IR	<b>735 908 658</b>	3.0	3.0	65	22	25
75 - 40	BCF, IR	<b>^ 735 908 666</b>	3.6	2.4	68	24	25
75 - 50	BCF, IR	<b>^ 735 908 665</b>	3.6	3.0	65	24	25
75 - 63	BCF, IR	<b>^ 735 908 664</b>	3.6	3.0	65	24	25
90 - 63	BCF, IR	<b>735 908 671</b>	4.3	3.0	75	25	30
90 - 75	BCF, IR	<b>^ 735 908 670</b>	4.3	3.6	75	25	35
110 - 63	BCF, IR	<b>735 908 678</b>	5.3	3.0	90	30	30
110 - 75	BCF, IR	<b>^ 735 908 677</b>	5.3	3.6	90	30	35
110 - 90	BCF, IR	<b>735 908 676</b>	5.3	4.3	90	30	35

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## Reducer, PN 10, PVDF-Standard

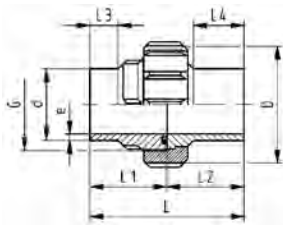


d - d1 (mm)	FM	PN (bar)	SDR	Part No.	weight (kg)	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
160 - 110	IR	10	33 - 21	<b>735 908 590</b>	0.573	4.9	5.3	120	40	40
200 - 160	IR	10	33 - 33	<b>735 908 592</b>	0.830	6.2	4.9	145	50	40
225 - 110	IR	10	33 - 21	<b>* 735 908 595</b>	0.940	6.9	5.3	160	55	35
225 - 160	IR	10	33 - 33	<b>* 735 908 596</b>	1.140	6.9	4.9	160	55	40
225 - 200	IR	10	33 - 33	<b>* 735 908 597</b>	1.200	6.9	6.2	160	55	50



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**Union (FKM black), PN 16, PVDF-Standard**



**Model:**

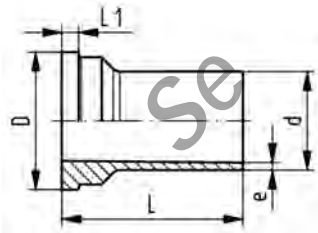
- d75, d90 and d100 with buttress-shaped thread

d (mm)	Part No.	weight (kg)
20	<b>735 528 606</b>	0.074
25	<b>735 528 607</b>	0.110
32	<b>735 528 608</b>	0.153
40	<b>^ 735 528 609</b>	0.220
50	<b>735 528 610</b>	0.293
63	<b>735 528 611</b>	0.449
75	<b>^ 735 528 612</b>	0.740
90	<b>735 528 613</b>	0.773
110	<b>735 528 614</b>	1.054

D (mm)	e (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	G (R/Rp BS Thread) (inch)
43	1.9	106	53	53	25	37	1
53	1.9	112	56	56	25	38	1 1/4
60	2.4	118	59	59	25	40	1 1/2
74	2.4	124	62	62	25	41	2
82	3.0	130	65	65	25	43	2 1/4
100	3.0	136	68	68	25	44	2 3/4
133	3.6	132	66	66	24	34	S107.5x3.6
133	4.3	130	65	65	24	48	S107.5x3.6
155	5.3	130	65	65	25	45	S127.5x3.6

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**Union End, PN 16, PVDF-Standard**



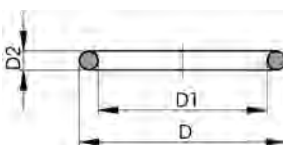
**Model:**

- Suitable for SYGEF Standard Union Butt Fusion

d (mm)	FM	PartNo.	weight (kg)	D (mm)	e (mm)	L (mm)	L1 (mm)
20	BCF, IR	<b>735 608 606</b>	0.020	30	1.9	53	5
25	BCF, IR	<b>735 608 607</b>	0.030	39	1.9	56	5
32	BCF, IR	<b>735 608 608</b>	0.044	45	2.4	59	6
40	BCF, IR	<b>735 608 609</b>	0.069	57	2.4	62	6
50	BCF, IR	<b>735 608 610</b>	0.083	63	3.0	65	7
63	BCF, IR	<b>735 608 611</b>	0.130	78	3.0	68	8
75	BCF, IR	<b>* 735 608 612</b>	0.209	101	3.6	66	9
90	BCF, IR	<b>* 735 608 613</b>	0.187	101	4.3	65	9
110	BCF, IR	<b>* 735 608 614</b>	0.263	121	5.3	65	10

B

**O-Ring for PROGEF, SYGEF Standard IR/BCF and Socket Fusion Unions**



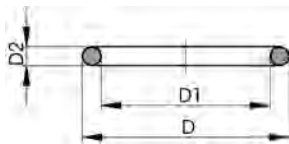
**Model:**

- For unions and adaptor unions
- Hardness approx. 65° Shore
- EPDM minimum temperature -40°F
- FKM minimum temperature -15°F
- \* for unions PVC-U, PVC-C and ABS: 21 51 01, 21 51 11, 21 53 03, 21 53 08, 21 55 04, 21 55 13, 21 55 18, 23 51 01 and 29 51 01 only

d (mm)	DN (mm)	EPDM Part No.	weight (kg)	FKM Part No.	weight (kg)
20	15	<b>^ 748 410 006</b>	0.002	<b>^ 749 410 006</b>	0.002
25	20	<b>^ 748 410 007</b>	0.002	<b>^ 749 410 007</b>	0.002
32	25	<b>748 410 008</b>	0.003	<b>749 410 008</b>	0.002

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d (mm)	DN (mm)	EPDM Part No.	weight (kg)	FKM Part No.	weight (kg)
40	32	748 410 009	0.003	749 410 009	0.007
50	40	748 410 010	0.004	749 410 010	0.060
63	50	748 410 011	0.005	749 410 011	0.003
75	65	* 748 410 014	0.007	* 749 410 014	0.012
90	80	* 748 410 015	0.008	* 749 410 015	0.015
110	100	* 748 410 016	0.016	* 749 410 016	0.031

d (mm)	DN (mm)	D (mm)	D1 (mm)	D2 (mm)	closest inch (inch)
20	15	27	20	3.53	½
25	20	35	28	3.53	¾
32	25	40	33	3.53	1
40	32	51	41	5.34	1 ¼
50	40	58	47	5.34	1 ½
63	50	70	60	5.34	2
75	65	93	82	5.34	2 ½
90	80	112	101	5.34	3
110	100	134	120	6.99	4

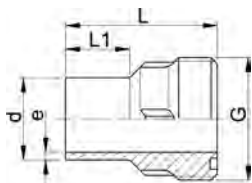
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### Union Bushing, PN 16, PVDF-Standard

#### Model:

- Suitable for SYGEF Standard Union Butt Fusion
- d75, d90 and d100 with buttress-shaped thread



d (mm)	FM	Part No.	weight (kg)	G (R/Rp BS Thread) (inch)	e (mm)	L (mm)	L1 (mm)
20	BCF, IR	* 735 648 606	0.025	1	1.9	53	25
25	BCF, IR	* 735 648 607	0.039	1 1/4	1.9	56	25
32	BCF, IR	* 735 648 608	0.055	1 1/2	2.4	59	25
40	BCF, IR	* 735 648 609	0.081	2	2.4	62	25
50	BCF, IR	* 735 648 610	0.110	2 1/4	3.0	65	25
63	BCF, IR	* 735 648 611	0.158	2 3/4	3.0	68	25
75	BCF, IR	* 735 648 612	0.277	S 107.5 x 3.6	3.6	66	24
90	BCF, IR	* 735 648 613	0.275	S 107.5 x 3.6	4.3	65	24
110	BCF, IR	* 735 648 614	0.343	S 127.5 x 3.6	5.3	65	25

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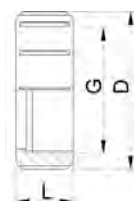


### Union Nut, PN 16, PVDF-Standard

- d75, d90 and d110 with buttress shaped thread

#### Note:

For dimensions d75-110 please see instructions for installation

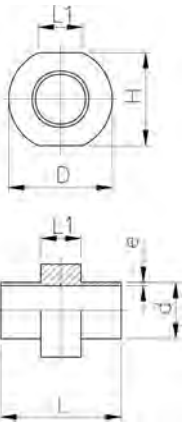


Socket Fu- sion d (mm)	Butt Fusion d (mm)	Part No.	weight (kg)	D (mm)	G (R/Rp BS Thread) (inch)	G (inch)	L (mm)
20	20	735 690 406	0.021	43	1	1	22
25	25	735 690 407	0.030	53	1 1/4	1 ¼	24
32	32	735 690 408	0.035	60	1 1/2	1 ½	26
40	40	735 690 409	0.065	74	2	2	29
50	50	735 690 410	0.093	82	2 1/4	2 ¼	33
63	63	735 690 411	0.144	100	2 3/4	2 ¾	35
	75 - 90	* 735 690 422	0.289	133			40
	110	* 735 690 423	0.403	155			42

B

**Instrument Installation Fitting, PN 16, PVDF Standard**

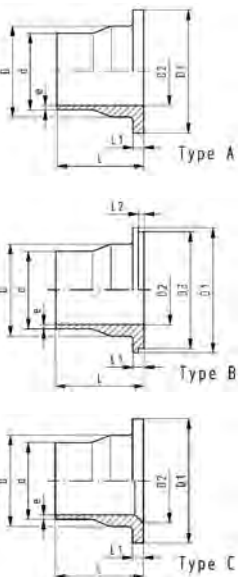
Add "T" to end of part number and fee to list price for each factory milled thread (max. diameter is 3/4"). See published price list for fee.



d (mm)	FM	Part No.	weight (kg)	e (mm)	L (mm)	D (mm)	H (mm)	L1 (mm)
20	BCF, IR	* 735 918 706	0.170	1.9	140	71	58	40
25	BCF, IR	* 735 918 707	0.200	1.9	140	75	63	40
32	BCF, IR	* 735 918 708	0.360	2.4	140	81	70	40
40	BCF, IR	* 735 918 709	0.390	2.4	140	88	78	40
50	BCF, IR	* 735 918 710	0.410	3.0	140	97	88	40
63	BCF, IR	* 155 918 711	0.430	3.0	140	109	101	40
75	BCF, IR	* 155 918 712	0.450	3.6	140	120	113	40
90	BCF, IR	* 155 918 713	0.470	4.3	140	134	128	40
110	BCF, IR	* 155 918 714	0.550	5.3	140	153	148	40

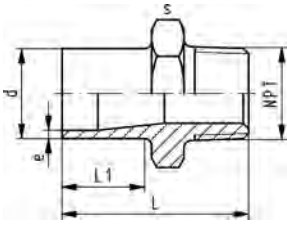
A

**Flange Adaptor, PN 16/PN 10, ANSI Serrated, PVDF-Standard**



d (mm)	FM	PN	Part No.	weight (lb)	e (mm)	D (mm)	D1 (mm)	D2 (mm)	L (mm)	L1 (mm)	Type
20	BCF, IR	16	735 798 806	0.064	1.9	26	45	15	54	6	A
25	BCF, IR	16	735 798 857	0.095	1.9	32	54	20	56	7	A
32	BCF, IR	16	735 798 858	0.139	2.4	40	63	26	58	7	A
40	BCF, IR	16	^ 735 798 859	0.196	2.4	49	73	34	68	8	A
50	BCF, IR	16	735 798 860	0.309	3.0	60	82	43	69	8	A
63	BCF, IR	16	735 798 811	0.474	3.0	75	102	56	72	9	A
75	BCF, IR	16	^ 735 798 812	0.717	3.6	89	122	66	80	10	A
90	BCF, IR	16	735 798 861	0.858	4.3	105	133	78	81	12	A
110	BCF, IR	16	735 798 814	1.263	5.3	125	158	100	81	13	C
160	IR	10	735 798 867	2.143	4.9	175	212	151	93	17	C
200	IR	10	735 798 869	3.708	6.2	232	268	207	102	22	C
225	IR	10	* 735 798 870	3.719	6.9	235	268	207	102	22	A

A



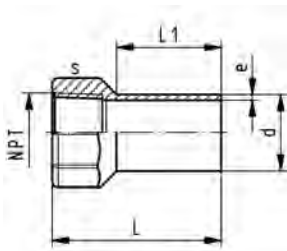
### Male NPT Adaptor, PN 16, PVDF-Standard

#### Model:

- With butt fusion spigot and NPT tapered male thread
- Avoid stress when installing and large changes in temperature
- Connection to plastic thread only
- Do not apply solvent-based or other sealing compounds which could damage PVDF

d	NPT	FM	Part No.	weight	e	L	s	L1
(mm)	(inch)			(kg)	(mm)	(mm)	(mm)	(mm)
20	¾	BCF, IR	<b>735 914 555</b>	0.023	1.9	50	32	26
20	½	BCF, IR	<b>735 914 556</b>	0.030	1.9	53	32	26
25	¾	BCF, IR	<b>735 914 557</b>	0.032	1.9	55	36	26
32	1	BCF, IR	<b>735 914 558</b>	0.052	2.4	57	46	26
40	1 ¼	BCF, IR	<b>735 914 559</b>	0.075	2.4	60	55	26
50	1 ½	BCF, IR	<b>735 914 560</b>	0.122	3.0	63	65	26
63	2	BCF, IR	<b>735 914 561</b>	0.176	3.0	69	75	27

A



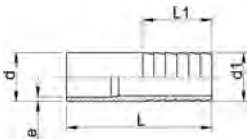
### Female NPT Adaptor, PN 16, PVDF-Standard

#### Model:

- With butt fusion spigot and NPT taper female thread
- Avoid stress when installing and large changes in temperature
- Connection to plastic thread only
- Do not apply solvent-based or other sealing compounds which could damage PVDF

d	NPT	FM	Part No.	weight	e	L	s	L1	
(mm)	(inch)			(kg)	(mm)	(mm)	(mm)	(mm)	
20	¾	BCF, IR	<b>735 914 585</b>	0.029	1.9	54	32	30	
20	½	BCF, IR	<b>735 914 586</b>	0.027	1.9	54	32	30	
25	¾	BCF, IR	<b>735 914 587</b>	0.033	1.9	58	38	30	
32	1	BCF, IR	<b>735 914 588</b>	0.066	2.4	63	48	30	
40	1 ¼	BCF, IR	<b>735 914 589</b>	0.085	2.4	67	58	30	
50	1 ½	BCF, IR	<b>735 914 590</b>	0.108	3.0	67	65	30	
*	63	2	BCF, IR	<b>735 914 591</b>	0.190	3.0	73	80	30

A

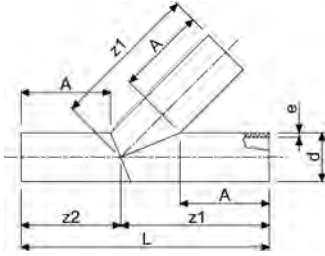


### Hose Adapter, PN 16, PVDF-Standard

d - d1	FM	Part No.	weight	e	L	L1
(mm)			(kg)	(mm)	(mm)	(mm)
20 - 20	BCF, IR	<b>* 735 968 606</b>	0.015	1.9	64	27
25 - 25	BCF, IR	<b>* 735 968 607</b>	0.027	1.9	75	36
32 - 32	BCF, IR	<b>* 735 968 608</b>	0.042	2.4	82	36
40 - 40	BCF, IR	<b>^ 735 968 609</b>	0.063	2.4	84	42
50 - 50	BCF, IR	<b>* 735 968 610</b>	0.084	3.0	90	48
63 - 60	BCF, IR	<b>* 735 968 611</b>	0.118	3.0	100	50

B

**45° Wye, PVDF-Standard**

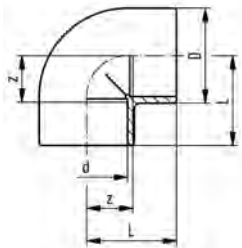


<b>d</b> (mm)	<b>Part No.</b>	<b>e</b> (mm)	<b>A</b> (inch)	<b>z1</b> (inch)	<b>z2</b> (inch)	<b>L</b> (inch)	<b>closest inch</b> (inch)
50	<b>* 155 345 050</b>	3.0	5.91	8.28	6.31	14.59	1 ½
63	<b>* 155 345 063</b>	3.0	5.91	8.90	6.42	15.32	2
75	<b>* 155 345 075</b>	3.6	5.91	9.47	6.52	15.99	2 ½
90	<b>* 155 345 090</b>	4.3	7.87	12.15	8.61	20.76	3
110	<b>* 155 345 110</b>	5.3	7.87	13.10	8.77	21.87	4
160	<b>* 155 345 160</b>	4.9	7.87	15.48	9.18	24.66	6
200	<b>* 155 345 200</b>	6.2	9.84	19.35	11.47	30.82	8
225	<b>* 155 345 225</b>	6.9	9.84	20.54	11.68	32.21	9
250	<b>* 155 345 250</b>	7.7	11.81	23.70	13.86	37.56	10
315	<b>* 155 345 315</b>	9.7	13.78	28.74	16.38	45.12	12

# Socket Fusion Fittings

A

## 90° Elbow, PN 16, PVDF-Standard, Socket Fusion



d (mm)	Part No.	D (mm)	L (mm)	z (mm)
16	<b>735 100 105</b>	26	25	12
20	<b>735 100 106</b>	27	28	14
25	<b>735 100 107</b>	32	32	16
32	<b>735 100 108</b>	40	38	20
40	<b>735 100 109</b>	49	44	24
50	<b>735 100 110</b>	60	51	28
63	<b>735 100 111</b>	75	62	35

A

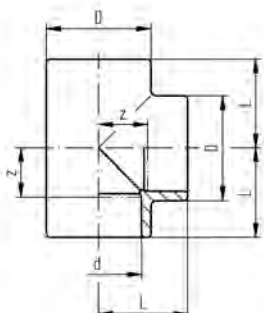
## 45° Elbow, PN 16, PVDF-Standard, Socket Fusion



d (mm)	Part No.	weight (kg)	D (mm)	L (mm)	z (mm)
16	<b>735 150 105</b>	0.017	23	20	7
20	<b>735 150 106</b>	0.020	27	21	7
25	<b>735 150 107</b>	0.032	32	24	8
32	<b>735 150 108</b>	0.050	40	28	10
40	<b>735 150 109</b>	0.081	49	33	13
50	<b>735 150 110</b>	0.119	60	36	13
63	<b>735 150 111</b>	0.211	75	43	16

A

## Tee, PN 16, PVDF-Standard, Socket Fusion



d (mm)	Part No.	weight (kg)	D (mm)	L (mm)	z (mm)
16	<b>735 200 105</b>	0.039	26	25	12
20	<b>735 200 106</b>	0.034	27	28	14
25	<b>735 200 107</b>	0.052	32	32	16
32	<b>735 200 108</b>	0.092	40	38	20
40	<b>735 200 109</b>	0.136	49	44	24
50	<b>735 200 110</b>	0.210	60	51	28
63	<b>735 200 111</b>	0.371	75	62	35

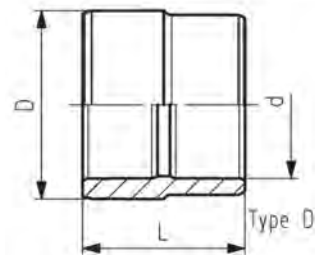
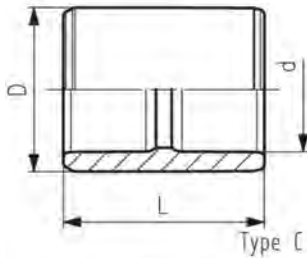
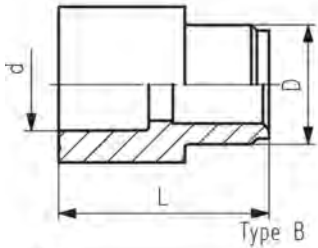
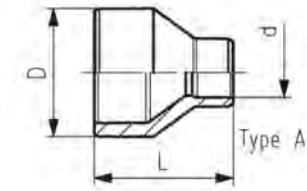
A



**Reducer Bushing, PN 16, PVDF-Standard, Socket Fusion**

**Attention:**

- Z dimension (distance between fused pipe ends) depends on use of reducer. See diagrams below.



D-d (mm)	Part No.	weight (kg)	L (mm)	Type
20 - 16	<b>735 910 334</b>	0.017	35	B
25 - 20	<b>735 910 337</b>	0.016	37	A
32 - 20	<b>735 910 342</b>	0.023	43	A
32 - 25	<b>735 910 107</b>	0.023	39	C
40 - 20	<b>735 910 348</b>	0.034	48	A
40 - 25	<b>735 910 347</b>	0.035	48	A
40 - 32	<b>735 910 108</b>	0.038	43	C
50 - 20	<b>735 910 355</b>	0.059	54	A
50 - 25	<b>735 910 354</b>	0.059	54	A
50 - 32	<b>735 910 353</b>	0.061	54	A
50 - 40	<b>735 910 109</b>	0.062	48	D
63 - 20	<b>735 910 362</b>	0.102	64	A
63 - 25	<b>735 910 361</b>	0.105	64	A
63 - 32	<b>735 910 360</b>	0.108	64	A
63 - 40	<b>735 910 359</b>	0.118	64	A
63 - 50	<b>735 910 110</b>	0.102	54	D

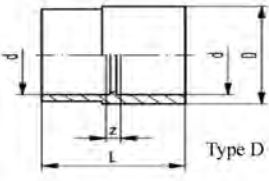
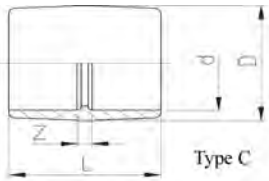
**overview about functionality**

Code	PN	L	main function			additional functions											
			spigot D	- socket d	L Z	reduction socket - socket			reduction spigot - spigot			reduction socket - spigot					
			D	d	L Z	D	d	L Z	D	d	L Z	D	d	L Z	D	d	L Z
735 910 334	16	35	20	- 16	35 22												
735 910 337	16	37	25	- 20	37 23												
735 910 342	16	43	32	- 20	43 29	25	- 20	43 13									
735 910 107	16	39	32	- 25	39 23												
735 910 348	16	48	40	- 20	48 34	32	- 20	48 16									
735 910 347	16	48	40	- 25	48 32	32	- 25	48 14	40	- 32	48 48						
735 910 108	16	43	40	- 32	43 25												
735 910 355	16	54	50	- 20	54 40	40	- 20	54 20									
735 910 354	16	54	50	- 25	54 38	40	- 25	54 18	50	- 32	54 54	40	- 32	54 34			
735 910 353	16	54	50	- 32	54 36	40	- 32	54 16	50	- 40	54 54						
735 910 109	16	48	50	- 40	48 28												
735 910 362	16	64	63	- 20	64 50	50	- 20	64 27									
735 910 361	16	64	63	- 25	64 48	50	- 25	64 25	63	- 32	64 64	50	- 32	64 41			
735 910 360	16	64	63	- 32	64 46	50	- 32	64 23	63	- 40	64 64	50	- 40	64 41			
735 910 359	16	64	63	- 40	64 44	50	- 40	64 21	63	- 50	64 64						
735 910 110	16	54	63	- 50	54 31												

please note: illustration of the functions not inevitably conform to respective type!

A

**Coupling, PN 16, PVDF-Standard, Socket Fusion**



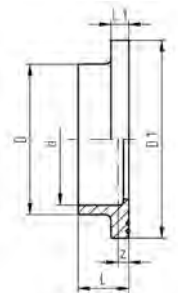
**Model:**

- Sizes d25 - d50 can be used as straight coupling or reducing bushing, as indicated

d (mm)	D-d (mm)	PN (bar)	Part No.	SP	weight (kg)	Type	D (mm)	L (mm)	z (mm)	
16	-	16	<b>735 910 105</b>	10	0.020	C	26	33	7	
20	-	16	<b>735 910 106</b>	2	0.013	C	27	35	7	
25	32 - 25	16	<b>735 910 107</b>	<b>21.24</b>	2	0.023	C	32	39	7
32	40 - 32	16	<b>735 910 108</b>	<b>30.5</b>	2	0.038	C	40	43	7
40	50 - 40	16	<b>735 910 109</b>	<b>31.81</b>	2	0.062	D	50	48	8
50	63 - 50	16	<b>735 910 110</b>	<b>57.6</b>	2	0.102	D	63	54	8
63	-	16	<b>735 910 111</b>	2	0.146	C	75	62	8	

A

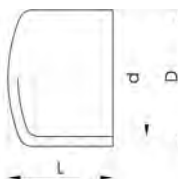
**Flange Adaptor, PN 16, ANSI Serrated, PVDF-Standard, Socket Fusion**



d (mm)	Part No.	weight (lb)	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
20	<b>735 790 206</b>	0.042	27	45	19	6	3
25	<b>735 790 257</b>	0.082	33	54	21	7	3
32	<b>735 790 258</b>	0.112	41	63	23	7	3
40	<b>735 790 259</b>	0.161	50	73	25	8	3
50	<b>735 790 260</b>	0.209	61	82	28	8	3
63	<b>735 790 211</b>	0.311	76	102	32	9	3

A

**Cap, PN 16, PVDF-Standard, Socket Fusion**



d (mm)	Part No.	weight (kg)	D (mm)	L (mm)
16	<b>735 960 105</b>	0.013	25	24
20	<b>735 960 106</b>	0.010	27	23
25	<b>735 960 107</b>	0.017	32	26
32	<b>735 960 108</b>	0.029	40	30
40	<b>735 960 109</b>	0.045	49	34
50	<b>735 960 110</b>	0.074	60	39
63	<b>735 960 111</b>	0.126	75	46



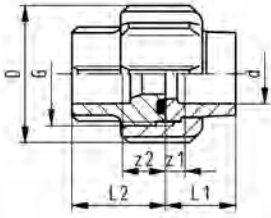
A



**Union (FKM black), PN 16, PVDF-Standard, Socket Fusion**

**Model:**

- With fusion socket metric
- Joining face: with O-ring groove
- Supplied with FKM O-Ring part# 749410005 - 011, respectively
- Please see installation instructions



d (mm)	Part No.	weight (kg)	D (mm)	G(R/Rp BS Thread) (inch)	G (inch)	L1 (mm)	L2 (mm)	z1 (mm)	z (mm)
16	<b>735 510 105</b>	0.025	35	¾	¾	18	24	5	11
20	<b>735 510 106</b>	0.057	43	1	1	19	26	5	12
25	<b>735 510 107</b>	0.090	53	1 ¼	1 ¼	21	28	5	12
32	<b>735 510 108</b>	0.118	60	1 ½	1 ½	23	30	5	12
40	<b>735 510 109</b>	0.195	74	2	2	25	34	5	14
50	<b>735 510 110</b>	0.244	82	2 ¼	2 ¼	28	39	5	16
63	<b>735 510 111</b>	0.403	100	2 ¾	2 ¾	32	47	5	20

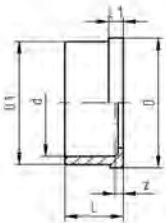
A



**Union End, PN 16, PVDF-Standard, Socket Fusion**

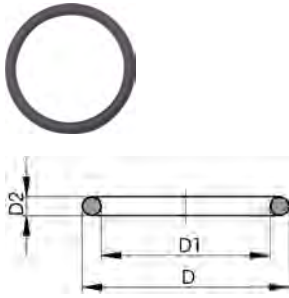
**Model:**

- Suitable for SYGEF Standard Union Socket Fusion



d (mm)	Part No.	D (mm)	D1 (mm)	L (mm)	L1 (mm)	z (mm)
16	<b>735 600 105</b>	24	22	18	4	5
20	<b>735 600 106</b>	30	28	19	5	5
25	<b>735 600 107</b>	39	36	21	5	5
32	<b>735 600 108</b>	45	42	23	6	5
40	<b>735 600 109</b>	57	53	25	6	5
50	<b>735 600 110</b>	63	59	28	7	5
63	<b>735 600 111</b>	78	74	32	7	5

B



## O-Ring for PROGEF, SYGEF Standard IR/BCF and Socket Fusion Unions

### Model:

- For unions and adaptor unions
- Hardness approx. 65° Shore
- EPDM minimum temperature -40°F
- FKM minimum temperature -15°F
- \* for unions PVC-U, PVC-C and ABS: 21 51 01, 21 51 11, 21 53 03, 21 53 08, 21 55 04, 21 55 13, 21 55 18, 23 51 01 and 29 51 01 only

d (mm)	DN (mm)	EPDM Part No.	weight (kg)	FKM Part No.	weight (kg)
16	10	<b>748 410 005</b>	0.004	<b>749 410 005</b>	0.002
20	15	<b>^ 748 410 006</b>	0.002	<b>^ 749 410 006</b>	0.002
25	20	<b>^ 748 410 007</b>	0.002	<b>^ 749 410 007</b>	0.002
32	25	<b>748 410 008</b>	0.003	<b>749 410 008</b>	0.002
40	32	<b>748 410 009</b>	0.003	<b>749 410 009</b>	0.007
50	40	<b>748 410 010</b>	0.004	<b>749 410 010</b>	0.060
63	50	<b>748 410 011</b>	0.005	<b>749 410 011</b>	0.003

d (mm)	DN (mm)	D (mm)	D1 (mm)	D2 (mm)	closest inch (inch)
16	10	21	16	2.62	¾
20	15	27	20	3.53	½
25	20	35	28	3.53	¾
32	25	40	33	3.53	1
40	32	51	41	5.34	1 ¼
50	40	58	47	5.34	1 ½
63	50	70	60	5.34	2

A



## Union Bushing, PN 16, PVDF-Standard, Socket Fusion

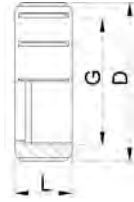
### Model:

- Suitable for SYGEF Standard Union Socket Fusion

d (mm)	PN (bar)	Part No.	SP	weight (kg)
16	16	<b>* 735 640 105</b>	10	0.011
20	16	<b>* 735 640 106</b>	4	0.019
25	16	<b>* 735 640 107</b>	<b>25.91</b>	4
32	16	<b>* 735 640 108</b>	<b>34.09</b>	4
40	16	<b>* 735 640 109</b>	<b>42.38</b>	4
50	16	<b>* 735 640 110</b>	<b>57.62</b>	2
63	16	<b>* 735 640 111</b>	2	0.159

d (mm)	G (R/Rp BS Thread) (inch)	G(R/Rp BS Thread) (inch)	G (inch)	L (mm)	z (mm)
16	3/4	¾	¾	24	11
20	1	1	1	26	12
25	1 1/4	1 ¼	1 ¼	28	12
32	1 1/2	1 ½	1 ½	30	12
40	2	2	2	34	14
50	2 1/4	2 ¼	2 ¼	39	16
63	2 3/4	2 ¾	2 ¾	47	20

B



**Union Nut, PN 16, PVDF-Standard**

**Model:**

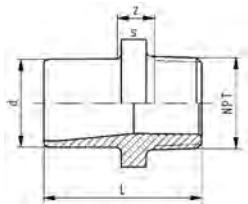
- Material: PVDF
- d75, d90 and d110 with butress shaped thread

**Note:**

For dimensions d75-110 please see instructions for installation

Socket Fusion d (mm)	Butt Fusion d (mm)	Part No.	weight (kg)	D (mm)	G (R/Rp BS Thread) (inch)	G (inch)	L (mm)
16	16	<b>735 690 405</b>	0.011	35	3/4	¾	21
20	20	<b>735 690 406</b>	0.021	43	1	1	22
25	25	<b>735 690 407</b>	0.030	53	1 1/4	1 ¼	24
32	32	<b>735 690 408</b>	0.035	60	1 1/2	1 ½	26
40	40	<b>735 690 409</b>	0.065	74	2	2	29
50	50	<b>735 690 410</b>	0.093	82	2 1/4	2 ¼	33
63	63	<b>735 690 411</b>	<b>149.20</b>	100	2 3/4	2 ¾	35
	75 - 90	<b>* 735 690 422</b>	<b>200.00</b>	0.289			40
	110	<b>* 735 690 423</b>	<b>270.47</b>	0.403			42

A



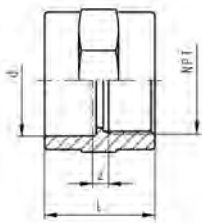
**Male NPT Adapter, PN 16, PVDF-Standard, Socket Fusion**

**Model:**

- Material: PVDF
- With socket fusion spigot and taper male thread
- Connection to plastic thread only
- Do not apply solvent-based or other sealing compounds which could damage PVDF
- Avoid stress when installing and large changes in temperature

d NPT (mm) (inch)	Part No.	weight (kg)	L (mm)	s (mm)	z (mm)
16 ¾	<b>735 914 505</b>	0.014	35	27	12
20 ½	<b>735 914 506</b>	0.025	53	32	25
25 ¾	<b>735 914 507</b>	0.033	55	36	24
32 1	<b>735 914 508</b>	0.053	57	46	22
40 1 ¼	<b>735 914 509</b>	0.080	60	55	21
50 1 ½	<b>735 914 510</b>	0.113	63	65	19
63 2	<b>735 914 511</b>	0.160	69	75	18

A



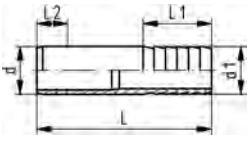
**Female NPT Adapter, PN 16 PVDF-Standard, Socket Fusion**

**Model:**

- Material: PVDF
- With socket fusion end and taper female thread
- Connection to plastic thread only
- Do not apply solvent-based or other sealing compounds which could damage PVDF
- Avoid stress when installing and large changes in temperature

d NPT (mm) (inch)	Part No.	weight (kg)	L (mm)	s (mm)	z (mm)
16 ¾	<b>735 914 205</b>	0.016	29	27	3
20 ½	<b>735 914 206</b>	0.030	34	32	5
25 ¾	<b>735 914 207</b>	0.036	38	36	6
32 1	<b>735 914 208</b>	0.067	43	46	7
40 1 ¼	<b>735 914 209</b>	0.100	47	55	7
50 1 ½	<b>735 914 210</b>	0.140	54	65	9
63 2	<b>735 914 211</b>	0.220	62	80	9

A



**Hose Adapter, PN 16, PVDF-Standard, Socket Fusion**

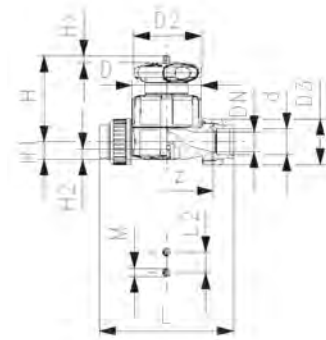
**Model:**

- Material: PVDF
- With socket fusion spigot (metric) and parallel hose connection

<b>d - d1</b> (mm)	<b>Part No.</b>	<b>weight</b> (kg)	<b>L</b> (mm)	<b>L1</b> (mm)	<b>L2</b> (mm)
20 - 20	* <b>735 960 406</b>	0.018	78	27	14
25 - 25	* <b>735 960 407</b>	0.028	91	36	16
32 - 32	* <b>735 960 408</b>	0.050	100	36	18
40 - 40	<b>^ 735 960 409</b>	0.078	104	42	20
63 - 60	* <b>735 960 411</b>	0.126	100	50	27

# Manual Valves

A



## Type 514 Diaphragm Valve SYGEF Standard PVDF Fusion sockets metric

### Model:

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

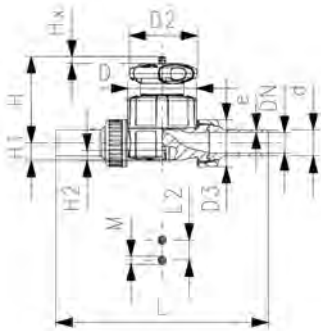
### Option:

- Self adjusting multifunctional module with integrated limit switches

d (mm)	PTFE/EPDM Part No.	weight (lb)
20	<b>185 514 032</b>	0.789
25	<b>185 514 033</b>	1.204
32	<b>185 514 034</b>	2.136
40	<b>185 514 035</b>	3.710
50	<b>185 514 036</b>	6.464
63	<b>185 514 037</b>	6.603

d (mm)	D (mm)	D2 (mm)	D3 (mm)	L (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	M	z (mm)	Lift = Hx (mm)	closest inch (inch)
20	65	65	43	128	25	73	14	12	M6	100	7	½
25	80	65	53	150	25	81	18	12	M6	118	10	¾
32	88	87	60	162	25	107	22	12	M6	126	13	1
40	101	87	74	184	45	115	26	15	M8	144	15	1 ¼
50	117	135	82	210	45	148	32	15	M8	164	19	1 ½
63	144	135	100	248	45	166	39	15	M8	194	25	2

A



**Type 514 Diaphragm Valve SYGEF Standard PVDF**  
**Butt fusion spigots metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	PTFE/EPDM Part No.	weight (lb)
20	<b>185 514 132</b>	0.840
25	<b>185 514 133</b>	1.224
32	<b>185 514 134</b>	2.310
40	<b>185 514 135</b>	3.089
50	<b>185 514 136</b>	4.489
63	<b>185 514 137</b>	7.485

d (mm)	D (mm)	D2 (mm)	D3 (mm)	L (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	M	Lift = Hx (mm)	e (mm)	closest inch (inch)
20	65	65	43	196	25	73	14	12	M6	7	1.9	½
25	80	65	53	221	25	81	18	12	M6	10	1.9	¾
32	88	87	60	234	25	107	22	12	M6	13	2.4	1
40	101	87	74	260	45	115	26	15	M8	15	2.4	1 ¼
50	117	135	82	284	45	148	32	15	M8	19	3.0	1 ½
63	144	135	100	321	45	166	39	15	M8	25	3.0	2

A



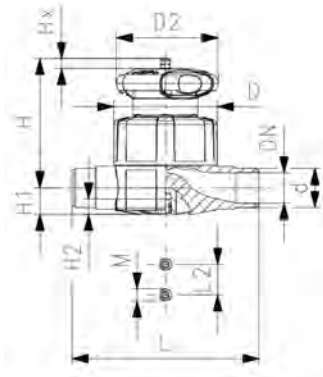
**Type 515 Diaphragm Valve SYGEF Standard PVDF**  
**Socket fusion spigot metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- EPDM version is PN 10 pressure rated. PTFE/EPDM version is PN 6 pressure rated.

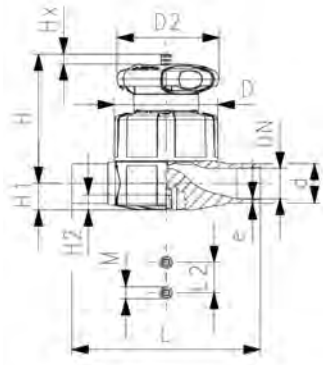
**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d (mm)	PTFE/EPDM Part No.	D (mm)	D2 (mm)	L (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	<b>185 515 032</b>	65	65	124	25	73	14	12	M6	7	½
25	<b>185 515 033</b>	80	65	144	25	81	18	12	M6	10	¾
32	<b>185 515 034</b>	88	87	154	25	107	22	12	M6	13	1
40	<b>185 515 035</b>	101	87	174	45	115	26	15	M8	15	1 ¼
50	<b>185 515 036</b>	117	135	194	45	148	32	15	M8	19	1 ½
63	<b>185 515 037</b>	144	135	223	45	166	39	15	M8	25	2

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**Type 515 Diaphragm Valve SYGEF Standard PVDF**  
**Butt fusion spigots metric**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- EPDM version is PN 10 pressure rated. PTFE/EPDM version is PN 6 pressure rated.

**Option:**

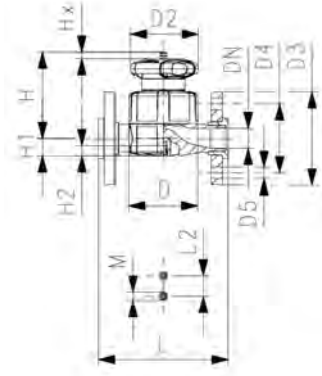
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d (mm)	PTFE/EPDM Part No.	weight (lb)
20	<b>185 515 132</b>	0.617
25	<b>185 515 133</b>	1.133
32	<b>185 515 134</b>	1.493
40	<b>185 515 135</b>	2.077
50	<b>185 515 136</b>	5.494
63	<b>185 515 137</b>	5.434

d (mm)	D (mm)	D2 (mm)	L (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	M	Lift = Hx (mm)	e (mm)	closest inch (inch)
20	65	65	124	25	73	14	12	M6	7	1.9	½
25	80	65	144	25	81	18	12	M6	10	1.9	¾
32	88	87	155	25	107	22	12	M6	13	2.4	1
40	101	87	176	45	115	26	15	M8	15	2.4	1 ¼
50	117	135	193	45	148	32	15	M8	19	3.0	1 ½
63	144	135	223	45	166	39	15	M8	25	3.0	2



A



**Type 517 Diaphragm Valve SYGEF Standard PVDF  
ANSI Flanged**

**Model:**

- Material: PVDF
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Joining faces flat/serrated
- Joining face serrated
- EPDM version is PN 10 pressure rated. PTFE/EPDM version is PN 6 pressure rated.
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

**Option:**

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

**Size PTFE/EPDM  
(inch) Part No.**

½	<b>185 517 732</b>
¾	<b>185 517 733</b>
1	<b>185 517 734</b>
1 ¼	<b>185 517 735</b>
1 ½	<b>185 517 736</b>
2	<b>185 517 737</b>

Size (inch)	D (mm)	D2 (mm)	D3 (mm)	D4 (mm)	D5 (mm)	L (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	M	Lift = Hx (mm)
½	65	65	95	60	16	130	25	73	14	12	M6	7
¾	80	65	105	70	16	150	25	81	18	12	M6	10
1	88	87	115	79	16	160	25	107	22	12	M6	13
1 ¼	101	87	140	89	16	180	45	115	26	15	M8	15
1 ½	117	135	150	98	16	200	45	148	32	15	M8	19
2	144	135	165	121	19	230	45	166	39	15	M8	25

A



**Type 317 Diaphragm Valve**  
**SYGEF Standard PVDF**  
**Flanged**

**Model:**

- Material: PVDF
- Overall length according to EN 558
- Diaphragm, PTFE with EPDM backing diaphragm (FDA compliant)

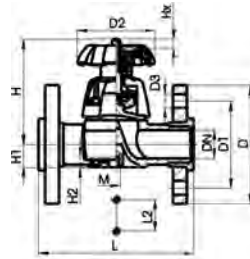
**Option:**

- Handwheel with built-in locking mechanism (standard version is nonlockable)

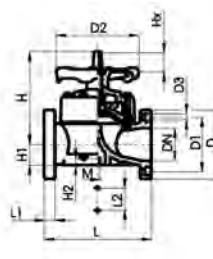
\* **3# and 6 # fixed flanges metric and Inch ANSI B16.5**

d	Size	PTFE with EPDM supp. diaphragm Part No.	weight
(mm)	(inch)		(lb)
75	2 ½	<b>175 317 538</b>	12.606
90	3	<b>175 317 009</b>	23.722
110	4	<b>175 317 340</b>	33.964
160	6	<b>175 317 012</b>	69.446

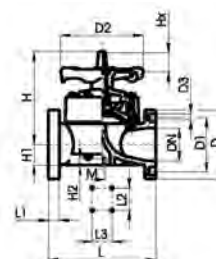
d	D	D1	D2	D3	H	H1	H2	Lift = Hx	L	L1	L2	L3	M	AL
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
75	185	140	152	18	201	46	15	30	290		70		M8	4
90	200	160	270	18	265	57	23	40	310	35	120		M12	8
110	225	191	270	19	304	69	23	50	350	35	120		M12	8
160	285	240	400	22	437	108	23	70	480	26	100	200	M12	8



DN 15-65



DN 80-100

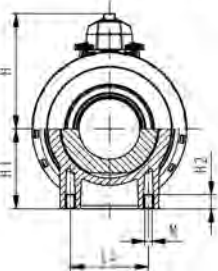
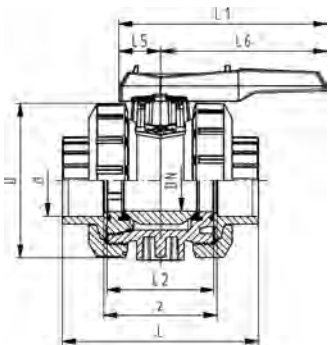
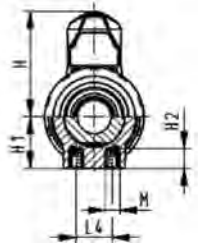
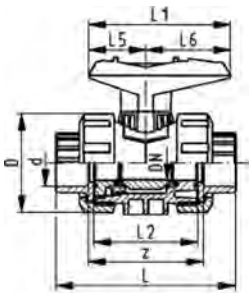


DN 150

A



DN10/15 - 50



**Type 546 Ball Valve SYGEF Standard PVDF**  
**With mounting inserts**  
**With fusion sockets metric**

**Model:**

- Valve end and union nut are **not compatible** with Type 346 (DN10/15-50) and Type 370 (DN65-100)

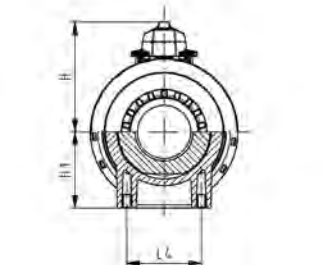
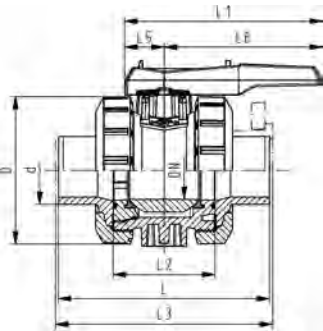
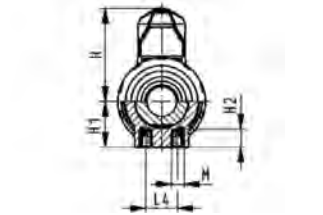
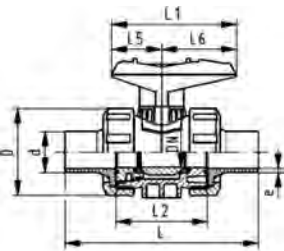
d (mm)	FKM Part No.	weight (lb)
16	175 546 411	0.430
20	175 546 412	0.434
25	175 546 413	0.666
32	175 546 414	0.950
40	175 546 415	1.676
50	175 546 416	2.229
63	175 546 417	4.092
75	175 546 418	13.889
90	175 546 419	20.944
110	175 546 420	33.069

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)	closest inch (inch)
16	50	79	27	12	93	77	56	25	32	45	M6	67	3/8
20	50	57	27	12	95	77	56	25	32	45	M6	66	1/2
25	58	67	30	12	109	97	65	25	39	58	M6	77	3/4
32	68	73	36	12	119	97	71	25	39	58	M6	83	1
40	84	90	44	15	135	128	85	45	54	74	M8	99	1 1/4
50	97	97	51	15	147	128	89	45	54	74	M8	105	1 1/2
63	124	116	64	15	168	152	101	45	66	87	M8	117	2
75	166	149	85	15	233	270	136	70	64	206	M8	167	2 1/2
90	200	161	105	15	254	270	141	70	64	206	M8	180	3
110	238	178	123	22	301	320	164	120	64	256	M12	215	4

A



DN10/15 - 50



**Type 546 Ball Valve Standard PVDF  
With mounting inserts  
With butt fusion spigots metric**

**Model:**

- Material: PVDF
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Valve end and union nut are **not compatible** with Type 346 (DN10/15-50) and Type 370 (DN65-100)

**Option:**

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from GF

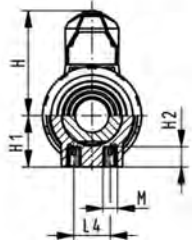
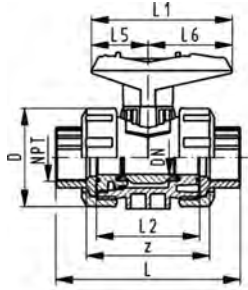
d (mm)	FKM weight Part No.	(lb)
20	<b>175 546 272</b>	0.443
25	<b>175 546 273</b>	0.664
32	<b>175 546 274</b>	0.966
40	<b>175 546 275</b>	1.720
50	<b>175 546 276</b>	2.447
63	<b>175 546 277</b>	4.317
75	<b>175 546 278</b>	16.755
90	<b>175 546 279</b>	16.440
110	<b>175 546 280</b>	38.360

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	½
25	58	67	30	12	143	97	65	25	39	58	M6	1.9	¾
32	68	73	36	12	150	97	71	25	39	58	M6	2.4	1
40	84	90	44	15	171	128	85	45	54	74	M8	2.4	1 ¼
50	97	97	51	15	191	128	89	45	54	74	M8	3.0	1 ½
63	124	116	64	15	220	152	101	45	66	87	M8	3.0	2
75	166	149	85	15	266	270	136	70	64	206	M8	3.6	2 ½
90	200	161	105	15	264	270	141	70	64	206	M8	4.3	3
110	238	178	123	22	301	320	164	120	64	256	M12	5.3	4

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DN10/15 - 50



**Type 546 Ball Valve Standard PVDF**  
**With mounting inserts**  
**With threaded sockets NPT**

NPT (inch)	FKM weight Part No.	(lb)
3/8	<b>175 546 331</b>	0.452
1/2	<b>175 546 332</b>	0.452
3/4	<b>175 546 333</b>	0.717
1	<b>175 546 334</b>	1.080
1 1/4	<b>175 546 335</b>	1.808
1 1/2	<b>175 546 336</b>	2.502
2	<b>175 546 337</b>	4.740

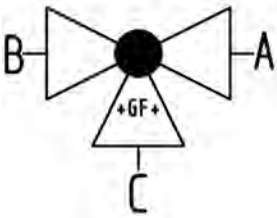
NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	z (mm)
3/8	50	57	27	12	96	77	56	25	32	45	M6	69
1/2	50	57	27	12	99	77	56	25	32	45	M6	64
3/4	58	67	30	12	111	97	65	25	39	58	M6	76
1	68	73	36	12	127	97	71	25	39	58	M6	83
1 1/4	84	90	44	15	146	128	85	45	54	74	M8	101
1 1/2	97	97	51	15	157	128	89	45	54	74	M8	111
2	124	116	64	15	183	152	101	45	66	87	M8	135

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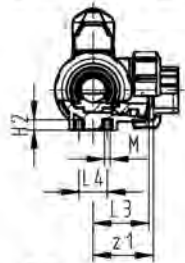
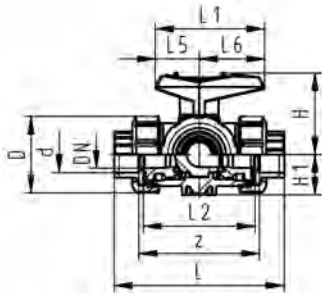


**Type 543 3-Way Ball Valve**  
**Horizontal/L-port, Standard PVDF**  
**With fusion sockets metric**

d (mm)	FKM Part No.	weight (lb)
16	<b>175 543 011</b>	0.619
20	<b>175 543 012</b>	0.639
25	<b>175 543 013</b>	1.016
32	<b>175 543 014</b>	1.442
40	<b>175 543 015</b>	2.643
50	<b>175 543 016</b>	3.631
63	<b>175 543 017</b>	7.114



d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	H (mm)	H1 (mm)	H2 (mm)	M (mm)	z (mm)	z1 (mm)	closest inch (inch)
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41	3/8
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41	1/2
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49	3/4
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55	1
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66	1 1/4
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76	1 1/2
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94	2

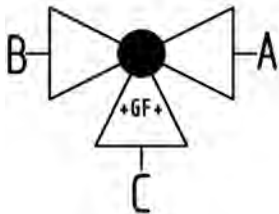
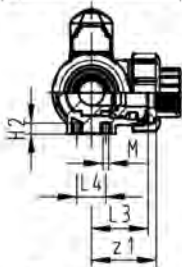
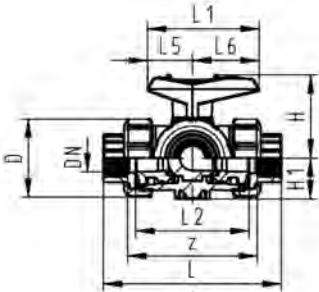


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**Type 543 3-Way Ball Valve  
Horizontal/L-port, Standard PVDF  
With threaded sockets NPT**

NPT (inch)	FKM Part No.	weight (lb)
3/8	<b>175 543 071</b>	0.688
1/2	<b>175 543 072</b>	0.705
3/4	<b>175 543 073</b>	1.016
1	<b>175 543 074</b>	1.552
1 1/4	<b>175 543 075</b>	2.643
1 1/2	<b>175 543 076</b>	3.920
2	<b>175 543 077</b>	7.632



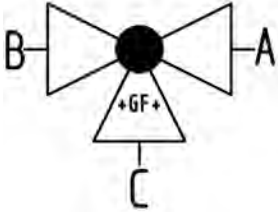
NPT (inch)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	H (mm)	H1 (mm)	H2 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	112	77	72	36	25	32	45	57	28	8	6	86	43
1/2	50	114	77	72	36	25	32	45	57	28	8	6	80	40
3/4	58	131	97	85	43	25	39	58	67	32	8	6	95	48
1	68	154	97	98	49	25	39	58	73	36	8	6	110	55
1 1/4	84	180	128	118	59	45	54	74	90	45	9	8	132	66
1 1/2	97	203	128	135	68	45	54	74	97	51	9	8	157	79
2	124	258	152	176	88	45	66	87	116	65	9	8	210	105

A

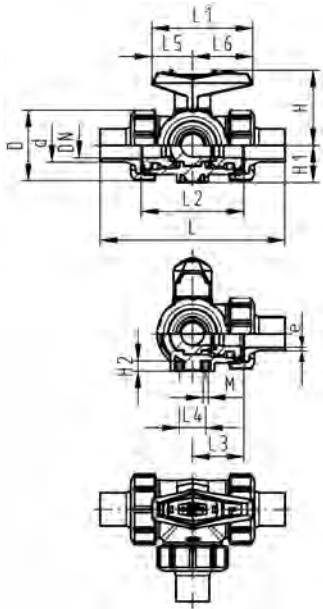


**Type 543 3-Way Ball Valve**  
**Horizontal/L-port, Standard PVDF**  
**With butt fusion spigots IR-Plus metric**

d (mm)	FKM Part No.	weight (lb)
20	175 543 052	0.732
25	175 543 053	1.058
32	175 543 054	1.620
40	175 543 055	2.703
50	175 543 056	4.098
63	175 543 057	7.430

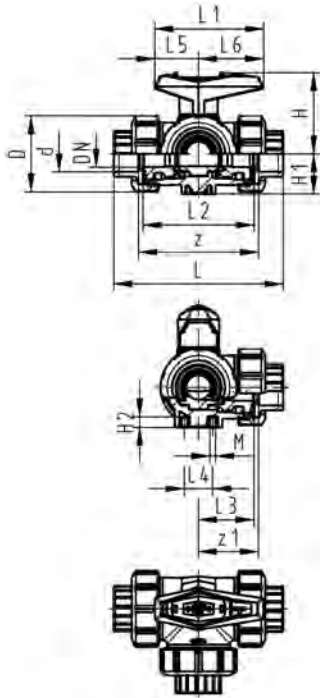
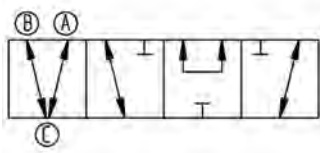
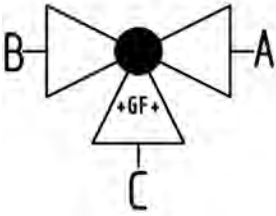


d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	H (mm)	H1 (mm)	H2 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	146	77	72	36	25	32	45	57	28	8	6	1.9	1/2
25	58	163	97	85	43	25	39	58	67	32	8	6	1.9	3/4
32	68	178	97	98	49	25	39	58	73	36	8	6	2.4	1
40	84	204	128	118	59	45	54	74	90	45	9	8	2.4	1 1/4
50	97	237	128	135	68	45	54	74	97	51	9	8	3.0	1 1/2
63	124	296	152	176	88	45	66	87	116	65	9	8	3.0	2





A



**Type 543 3-Way Ball Valve**  
**Horizontal/T-port, SYGEC Standard**  
**With fusion sockets metric**

d (mm)	FKM Part No.	weight (lb)
16	<b>175 543 111</b>	0.624
20	<b>175 543 112</b>	0.635
25	<b>175 543 113</b>	0.919
32	<b>175 543 114</b>	1.420
40	<b>175 543 115</b>	2.612
50	<b>175 543 116</b>	3.556
63	<b>175 543 117</b>	7.507

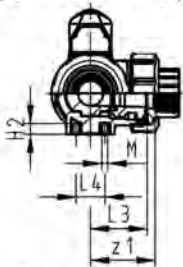
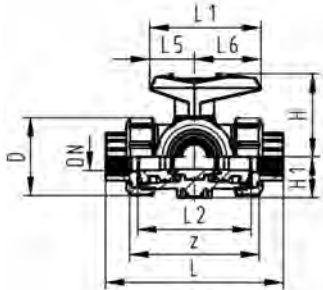
d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	H (mm)	H1 (mm)	H2 (mm)	M	z (mm)	z1 (mm)	closest inch (inch)
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41	3/8
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41	1/2
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49	3/4
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55	1
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66	1 1/4
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76	1 1/2
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94	2

A

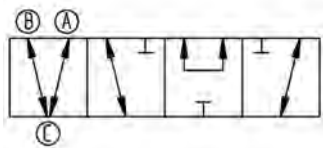
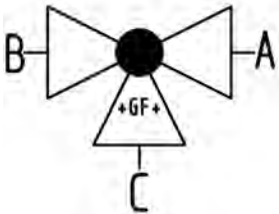


**Type 543 3-Way Ball Valve**  
**Horizontal/T-port, SYGEF Standard**  
**With threaded sockets NPT**

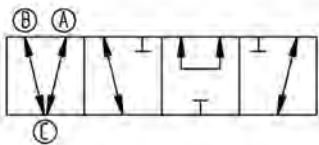
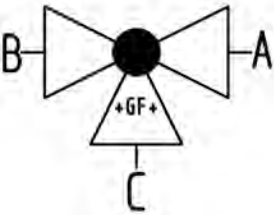
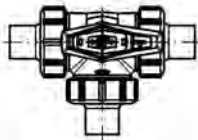
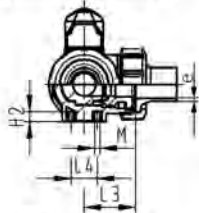
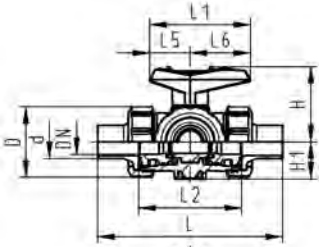
NPT (inch)	FKM Part No.	
3/8	175 543 171	
1/2	175 543 172	
3/4	175 543 173	
1	175 543 174	
1 1/4	175 543 175	
1 1/2	175 543 176	1,313.00
2	175 543 177	1,712.00



NPT (inch)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M (mm)	z (mm)	z1 (mm)
3/8	50	57	28	8	112	77	72	36	25	32	45	6	86	43
1/2	50	57	28	8	114	77	72	36	25	32	45	6	80	40
3/4	58	67	32	8	131	97	85	43	25	39	58	6	95	48
1	68	73	36	8	154	97	98	49	25	39	58	6	110	55
1 1/4	84	90	45	9	180	128	118	59	45	54	74	6	132	66
1 1/2	97	97	51	9	203	128	135	68	45	54	74	6	157	79
2	124	116	65	9	258	152	176	88	45	66	87	6	210	105



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**Type 543 3-Way Ball Valve**  
**Horizontal/T-port, Standard PVDF**  
**With butt fusion spigots IR-Plus metric**

d (mm)	FKM Part No.	weight (lb)
20	<b>175 543 152</b>	0.708
25	<b>175 543 153</b>	1.054
32	<b>175 543 154</b>	1.444
40	<b>175 543 155</b>	2.672
50	<b>175 543 156</b>	4.039
63	<b>175 543 157</b>	7.862

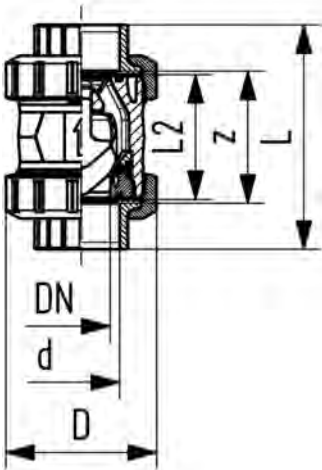
d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	H (mm)	H1 (mm)	H2 (mm)	M (mm)	e (mm)	closest inch (inch)
20	50	146	77	72	36	25	32	45	57	28	8	6	1.9	3/4
25	58	163	97	85	43	25	39	58	67	32	8	6	1.9	3/4
32	68	178	97	98	49	25	39	58	73	36	8	6	2.4	1
40	84	204	128	118	59	45	54	74	90	45	9	8	2.4	1 1/4
50	97	237	128	135	68	45	54	74	97	51	9	8	3.0	1 1/2
63	124	296	152	176	88	45	66	87	116	65	9	8	3.0	2

A



**Check valve type 561 SYGEF Standard  
With fusion sockets metric**

d (mm)	FKM Part No.	weight (lb)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	^ 175 561 011	0.353	50	93	56	67	¾
20	^ 175 561 012	0.353	50	95	56	66	½
25	^ 175 561 013	0.750	58	109	65	77	¾
32	^ 175 561 014	0.794	68	119	71	83	1
40	^ 175 561 015	1.477	84	135	85	99	1 ¼
50	^ 175 561 016	2.183	97	147	89	105	1 ½
63	^ 175 561 017	3.902	124	168	101	117	2
75	^ 175 561 018	8.003	166	233	136	167	2 ½
90	^ 175 561 019	12.787	200	254	141	180	3
110	^ 175 561 020	20.834	238	301	164	215	4

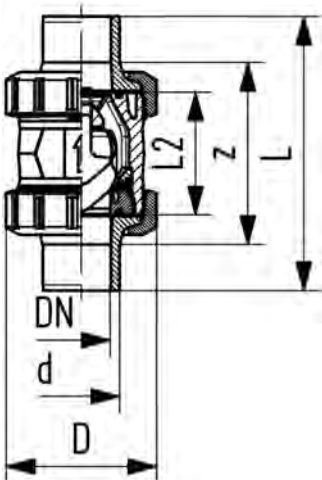


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**Check valve type 561 SYGEF Standard  
With butt fusion spigots IR-Plus metric**

d (mm)	FKM Part No.	weight (lb)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	^ 175 561 092	0.353	50	130	56	1.9	½
25	^ 175 561 093	0.772	58	143	65	1.9	¾
32	^ 175 561 094	0.838	68	150	71	2.4	1
40	^ 175 561 095	1.455	84	171	85	2.4	1 ¼
50	^ 175 561 096	2.205	97	191	89	3.0	1 ½
63	^ 175 561 097	3.946	124	220	101	3.0	2

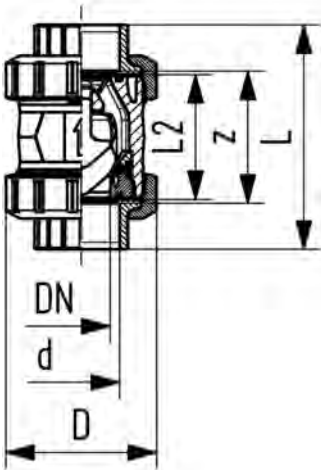


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**Check valve type 561**  
**SYGEF Standard silicone free**  
**With fusion sockets metric**

d (mm)	FKM Part No.	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	^ 175 561 211	50	93	56	67	¾
20	^ 175 561 212	50	95	56	66	½
25	^ 175 561 213	58	109	65	77	¾
32	^ 175 561 214	68	119	71	83	1
40	^ 175 561 215	84	135	85	99	1 ¼
50	^ 175 561 216	97	147	89	105	1 ½
63	^ 175 561 217	124	168	101	117	2
75	^ 175 561 218	166	235	136	167	2 ½
90	^ 175 561 219	200	255	141	180	3
110	^ 175 561 220	238	305	164	215	4

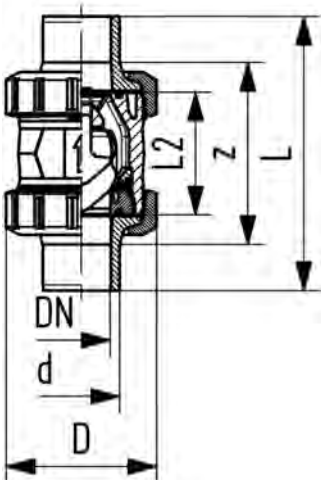


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**Check valve type 561**  
**SYGEF Standard silicone free**  
**With butt fusion spigots IR-Plus metric**

d (mm)	FKM Part No.	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	^ 175 561 272	50	130	56	1.9	½
25	^ 175 561 273	58	143	65	1.9	¾
32	^ 175 561 274	68	150	71	2.4	1
40	^ 175 561 275	84	171	85	2.4	1 ¼
50	^ 175 561 276	97	191	89	3.0	1 ½
63	^ 175 561 277	124	220	101	3.0	2
75	^ 175 561 278	166	290	136	3.6	2 ½
90	^ 175 561 279	200	310	141	4.3	3
110	^ 175 561 280	238	350	164	5.3	4

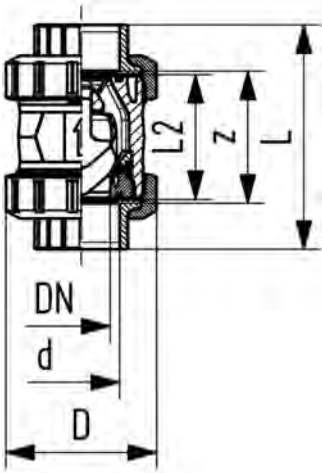


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**Check valve type 562 SYGEF Standard  
With fusion sockets metric**

d (mm)	FKM Part No.	weight (lb)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	^ 175 562 011	0.353	50	93	56	67	¾
20	^ 175 562 012	0.353	50	95	56	66	½
25	^ 175 562 013	0.750	58	109	65	77	¾
32	^ 175 562 014	0.794	68	119	71	83	1
40	^ 175 562 015	1.477	84	135	85	99	1 ¼
50	^ 175 562 016	2.183	97	147	89	105	1 ½
63	^ 175 562 017	3.902	124	168	101	117	2

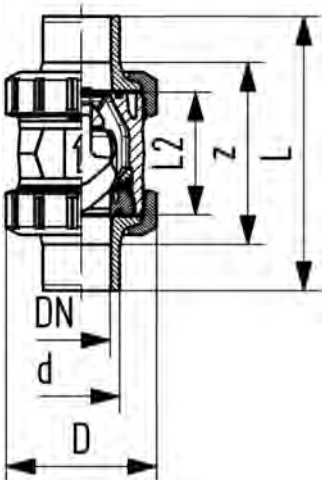


A



**Check valve type 562 SYGEF Standard  
With butt fusion spigots IR-Plus metric**

d (mm)	FKM Part No.	weight (lb)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	^ 175 562 092	0.353	50	130	56	1.9	½
25	^ 175 562 093	0.772	58	143	65	1.9	¾
32	^ 175 562 094	0.838	68	150	71	2.4	1
40	^ 175 562 095	1.455	84	171	85	2.4	1 ¼
50	^ 175 562 096	2.205	97	191	89	3.0	1 ½
63	^ 175 562 097	3.946	124	220	101	3.0	2



A

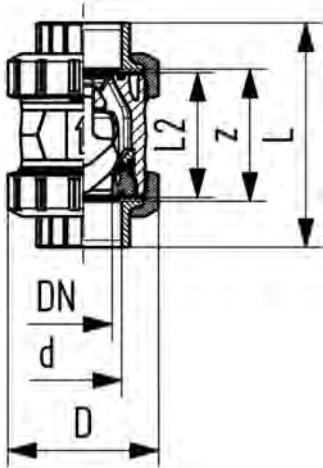


**Check valve type 562 SYGEF Standard  
silicone free  
With fusion sockets metric**

**Model:**

- Material: PVDF / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



d (mm)	FKM Part No.	weight (kg)	D (mm)	L (mm)	L2 (mm)	z (mm)	closest inch (inch)
16	^ 175 562 211	0.160	50	93	56	67	3/8
20	^ 175 562 212	0.160	50	95	56	66	1/2
25	^ 175 562 213	0.340	58	109	65	77	3/4
32	^ 175 562 214	0.360	68	119	71	83	1
40	^ 175 562 215	0.670	84	135	85	99	1 1/4
50	^ 175 562 216	0.990	97	147	89	105	1 1/2
63	^ 175 562 217	1.770	124	168	101	117	2
75	^ 175 562 218	3.630	166	235	136	167	2 1/2
90	^ 175 562 219	5.800	200	255	141	180	3
110	^ 175 562 220	9.450	238	305	164	215	4

A

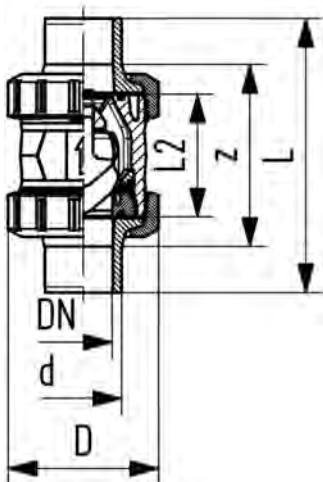


**Check valve type 562 SYGEF Standard  
silicone free  
With butt fusion spigots IR-Plus metric**

**Model:**

- Material: PVDF / silicone free cleaned
- For horizontal or vertical installation
- Sealing at a minimum water column of 1m
- Spring loaded, spring made of stainless steel (1.4310)
- Spring available in other materials, see spare parts
- Designed for easy installation and removal
- Vibration free even at high flow velocity
- Flow-optimized return cone, double guided
- Compact installation length, same as ball valve type 546

Warning: please make sure the diameter is not reduced through welding beads (Danger of turbulences)



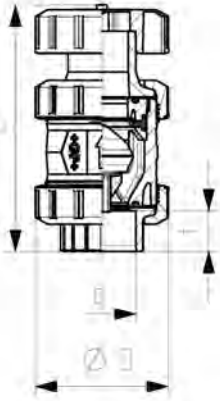
d (mm)	FKM Part No.	weight (kg)	D (mm)	L (mm)	L2 (mm)	e (mm)	closest inch (inch)
20	^ 175 562 272	0.160	50	130	56	1.9	1/2
25	^ 175 562 273	0.350	58	143	65	1.9	3/4
32	^ 175 562 274	0.380	68	150	71	2.4	1
40	^ 175 562 275	0.660	84	171	85	2.4	1 1/4
50	^ 175 562 276	1.000	97	191	89	3.0	1 1/2
63	^ 175 562 277	1.790	124	220	101	3.0	2
75	^ 175 562 278	3.680	166	290	136	3.6	2 1/2
90	^ 175 562 279	5.760	200	310	141	4.3	3
110	^ 175 562 280	9.270	238	350	164	5.3	4

A

**Type 591 SYGEF Standard  
Ventilating and bleed valve  
With fusion sockets metric**



d (mm)	FKM Part No.	weight (kg)	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	^ 175 591 011	0.177	50	126	14	3/8
20	^ 175 591 012	0.177	50	127	15	1/2
25	^ 175 591 013	0.363	58	142	16	3/4
32	^ 175 591 014	0.394	68	153	18	1
40	^ 175 591 015	0.722	84	171	19	1 1/4
50	^ 175 591 016	1.059	97	190	21	1 1/2
63	^ 175 591 017	1.876	124	219	26	2
75	* 175 591 018	3.630	166	256	33	2 1/2
90	* 175 591 019	5.800	200	275	37	3
110	* 175 591 020	9.450	238	318	43	4

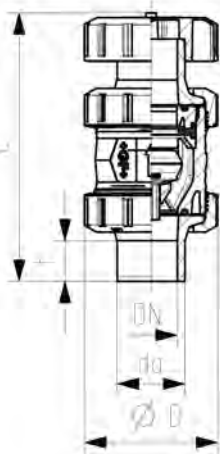


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**Type 591 SYGEF Standard  
Ventilating and bleed valve  
With socket fusion spigots metric**



d (mm)	FKM Part No.	weight (lb)	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	^ 175 591 031	0.390	50	135	13	3/8
20	^ 175 591 032	0.412	50	140	14	1/2
25	^ 175 591 033	0.866	58	157	16	3/4
32	^ 175 591 034	0.957	68	168	18	1
40	^ 175 591 035	1.592	84	189	20	1 1/4
50	^ 175 591 036	2.423	97	211	23	1 1/2
63	^ 175 591 037	4.268	124	245	27	2



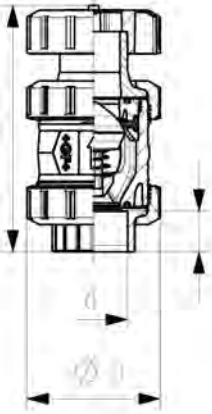


A

**Ventilating valve type 595**  
**SYGEF Standard**  
**With fusion sockets metric**



d (mm)	FKM Part No.	weight (lb)	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	^ 175 595 011	0.390	50	126	14	3/8
20	^ 175 595 012	0.390	50	127	15	1/2
25	^ 175 595 013	0.800	58	142	16	3/4
32	^ 175 595 014	0.869	68	153	18	1
40	^ 175 595 015	1.592	84	171	19	1 1/4
50	^ 175 595 016	2.335	97	190	21	1 1/2
63	^ 175 595 017	4.136	124	219	26	2
75	* 175 595 018	8.003	166	256	33	2 1/2
90	* 175 595 019	12.787	200	275	37	3
110	* 175 595 020	20.834	238	318	43	4

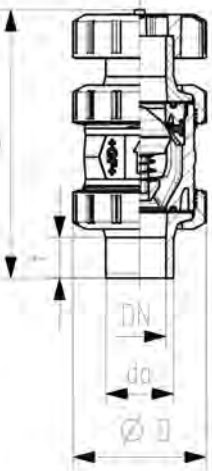


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**Ventilating valve type 595**  
**SYGEF Standard**  
**With socket fusion spigots metric**



d (mm)	FKM Part No.	weight (lb)	D (mm)	L (mm)	t (mm)	closest inch (inch)
16	^ 175 595 031	0.390	50	135	13	3/8
20	^ 175 595 032	0.412	50	140	14	1/2
25	^ 175 595 033	0.866	58	157	16	3/4
32	^ 175 595 034	0.957	68	168	18	1
40	^ 175 595 035	1.592	84	189	20	1 1/4
50	^ 175 595 036	2.423	97	211	23	1 1/2
63	^ 175 595 037	4.268	124	245	27	2



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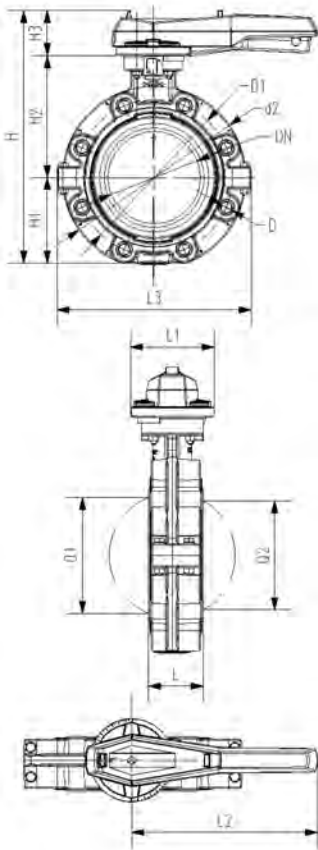
**SYGEF Standard**  
**Lugstyle butterfly valve 578 ANSI**  
**Hand lever with ratchet settings**

**Model:**

- Housing material: PP-GF30 with 316SS lug inserts
- Overall length according to EN 558, ISO 5752 (DN50 - 200 line 25, DN250 - 300 line 10)
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version

**Option:**

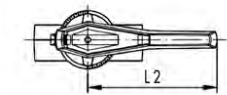
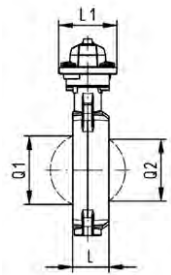
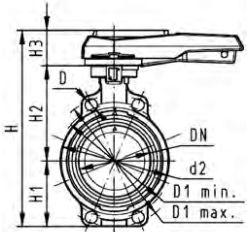
- Optional accessory: Integrated position feedback with limit switches (sold separately)



d	Size	DN	PN	Cv-value	FKM	SP	weight
(mm)	(inch)	(mm)	(bar)	(L/min)	Part No.		(kg)
63	2	50	10	1470	<b>175 578 102</b>	1	1.800
75	2 ½	65	10	2200	<b>175 578 103</b>	1	1.895
90	3	80	10	3000	<b>175 578 104</b>	1	2.251
110	4	100	10	6500	<b>175 578 105</b>	1	3.146
140	5	125	10	11500	<b>175 578 106</b>	1	4.660
160	6	150	10	16600	<b>175 578 107</b>	1	6.430
225	8	200	10	39600	<b>175 578 108</b>	1	8.625
280	10	300	10	55200	<b>175 578 109</b>	1	19.528
315	12	250	10	80000	<b>175 578 110</b>	1	26.106

d	Size	d2	D	D1	H	H1	H2	H3	L	L1	L2	L3	Q1	Q2
(mm)	(inch)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
63	2	160	UNC 5/8	120.6	265	77	134	54	45	106	205	165	40	
75	2 ½	180	UNC 5/8	139.7	277	83	140	54	46	106	205	182	54	35
90	3	195	UNC 5/8	152.4	289	89	146	54	49	106	205	210	67	50
110	4	226	UNC 5/8	190.5	328	106	167	55	56	106	255	240	88	74
140	5	258	UNC 3/4	215.9	357	121	181	55	64	106	255	272	113	97
160	6	284	UNC 3/4	241.3	377	133	189	55	72	106	255	300	139	123
225	8	341	UNC 3/4	298.4	436	159	210	67	73	140	408	360	178	169
280	10	412	UNC 7/8	362.0	536	205	264	67	114	140	408	440	210	207
315	12	482	UNC 7/8	431.8	586	234	285	67	115	140	408	510	256	253

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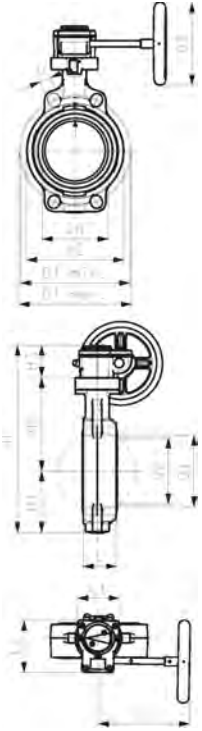
**Type 567 Butterfly Valve SYGEF® Standard PVDF**  
**Hand lever with ratchet settings**

d (mm)	Size (inch)	FKM Part No.		PTFE/FKM Part No.		weight (kg)
63	2	175 567 002		* 175 567 202		1.080
75	2 ½	175 567 003		* 175 567 203		1.192
90	3	175 567 004		* 175 567 204		1.992
110	4	175 567 005	1,747.00	* 175 567 205	2,028.00	2.072
140	5	175 567 006	2,728.00	* 175 567 206	3,127.00	2.667
160	6	175 567 007	2,728.00	* 175 567 207	3,127.00	3.887
225	8	175 567 008	3,577.00	* 175 567 208	4,008.00	7.242
315	12	175 567 010	7,665.00	* 175 567 210	10,848.00	19.513

d (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	d2 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	19	120	125	104	264	77	134	54	45	106	205	40	
75	19	140	145	115	277	83	140	54	46	106	205	54	35
90	19	150	160	131	289	89	146	54	49	106	205	67	50
110	19	175	191	161	325	104	167	55	56	106	255	88	74
140	23	210	216	187	352	117	181	55	64	106	255	113	97
160	24	241	241	215	373	130	189	55	72	106	255	139	123
225	23	290	295	267	435	158	210	67	73	140	408	178	169
315	25	400	432	379	598	228	285	85	113	149	408	256	253

A

**Type 567 Butterfly Valve SYGEF® Standard PVDF  
Reduction gear with handwheel**



d (mm)	Size (inch)	FKM Part No.	PTFE/FKM Part No.	weight (lb)
63	2	175 567 022	* 175 567 222	6.874
75	2 ½	175 567 023	* 175 567 223	7.121
90	3	175 567 024	* 175 567 224	7.791
110	4	175 567 025	* 175 567 225	8.955
140	5	175 567 026	* 175 567 226	10.267
160	6	175 567 027	* 175 567 227	12.957
225	8	175 567 028	* 175 567 228	17.218
315	12	175 567 030	* 175 567 230	79.366

d (mm)	D (mm)	D1 min. (mm)	D1 max. (mm)	d2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)
63	19	120	125	104	160	273	77	134	62	45	78	112	179	40
75	19	140	145	115	160	285	83	140	62	46	78	112	179	54
90	19	150	160	131	160	297	89	146	62	49	78	112	179	67
110	19	175	191	160	160	333	104	167	62	56	78	112	179	88
140	23	210	216	187	160	360	117	181	62	64	78	112	179	113
160	24	241	241	215	160	381	130	189	62	72	78	112	179	139
225	23	290	295	267	160	430	158	210	62	73	78	112	179	178
315	25	400	432	379	200	605	228	285	69	113	97	130	198	256

d (mm)	Q2 (mm)
63	35
75	50
90	74
110	97
140	123
160	169
225	253



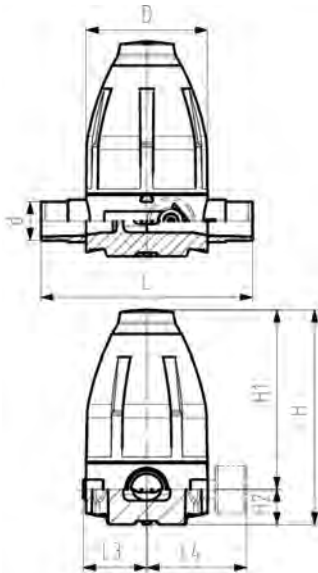
**Type 582 Pressure Reducing Valve SYGEF Standard PVDF Butt fusion spigots metric Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FKM Part No.	weight (kg)
20	15	10	<b>185 582 012</b>	0.700
25	20	10	<b>185 582 013</b>	1.550
32	25	10	<b>185 582 014</b>	1.560
40	32	10	<b>185 582 015</b>	4.370
50	40	10	<b>185 582 016</b>	4.400
63	50	10	<b>185 582 017</b>	4.520

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L3 (mm)	M	closest inch (inch)
20	79	132	111	21	14	150	42	M6	½
25	100	177	148	29	14	190	53	M6	¾
32	100	177	148	29	14	190	53	M6	1
40	147	251	207	44	21	240	76	M8	1 ¼
50	147	251	207	44	21	240	76	M8	1 ½
63	147	251	207	44	21	260	76	M8	2



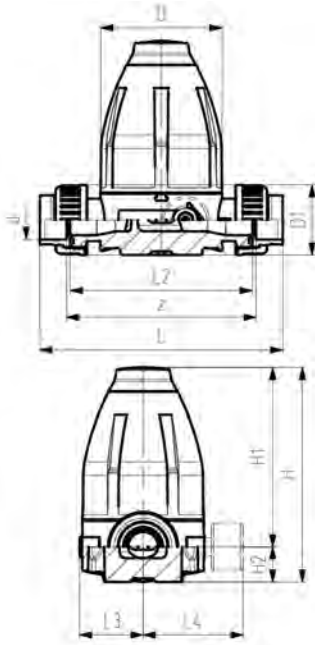
**Type 582 Pressure Reducing Valve SYEGEF Standard PVDF Unions with fusion sockets metric Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings Part No.	FKM weight (kg)
20	15	10	<b>185 582 112</b>	0.780
25	20	10	<b>185 582 113</b>	1.650
32	25	10	<b>185 582 114</b>	1.700
40	32	10	<b>185 582 115</b>	4.530
50	40	10	<b>185 582 116</b>	4.750
63	50	10	<b>185 582 117</b>	5.050

d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	z (mm)	closest inch (inch)
20	79	43	132	111	21	12	158	120	42	M6	130	½
25	100	53	177	148	29	14	192	150	53	M6	160	¾
32	100	60	177	148	29	14	196	150	53	M6	160	1
40	147	74	251	207	44	21	255	205	76	M8	215	1 ¼
50	147	82	251	207	44	21	261	205	76	M8	215	1 ½
63	147	100	251	207	44	21	269	205	76	M8	215	2

**Type 582 Pressure Reducing Valve SYGEF Standard PVDF Unions with butt fusion spigots metric Without manometer**

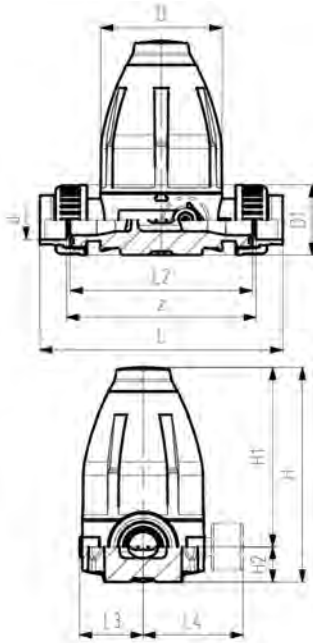


**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings Part No.	FKM weight (kg)
20	15	10	<b>185 582 512</b>	0.830
25	20	10	<b>185 582 513</b>	1.710
32	25	10	<b>185 582 514</b>	1.760
40	32	10	<b>185 582 515</b>	4.750
50	40	10	<b>185 582 516</b>	4.840
63	50	10	<b>185 582 517</b>	5.140

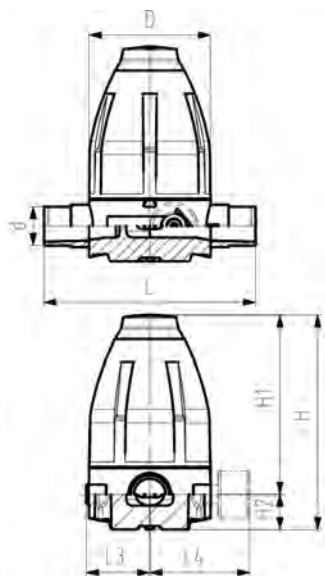
d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	closest inch (inch)
20	79	43	132	111	21	12	226	120	42	M6	½
25	100	53	177	148	29	14	262	150	53	M6	¾
32	100	60	177	148	29	14	268	150	53	M6	1
40	147	74	251	207	44	21	329	205	76	M8	1 ¼
50	147	82	251	207	44	21	335	205	76	M8	1 ½
63	147	100	251	207	44	21	341	205	76	M8	2



**Type 586 Pressure Retaining Valve SYGEF Standard PVDF Butt fusion spigots metric Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
  - Integrated stainless steel mounting inserts
  - 0.5-9.0 bar (7-130 psi)
- 0.3-3.0 bar (4-44 psi) on request  
 Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FKM Part No.	weight (kg)
20	15	10	<b>185 586 012</b>	0.700
25	20	10	<b>185 586 013</b>	1.570
32	25	10	<b>185 586 014</b>	1.580
40	32	10	<b>185 586 015</b>	4.410
50	40	10	<b>185 586 016</b>	4.430
63	50	10	<b>185 586 017</b>	4.550

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L3 (mm)	M	closest inch (inch)
20	79	132	111	21	14	150	42	M6	½
25	100	177	148	29	14	190	53	M6	¾
32	100	177	148	29	14	190	53	M6	1
40	147	251	207	44	21	240	76	M8	1 ¼
50	147	251	207	44	21	240	76	M8	1 ½
63	147	251	207	44	21	260	76	M8	2





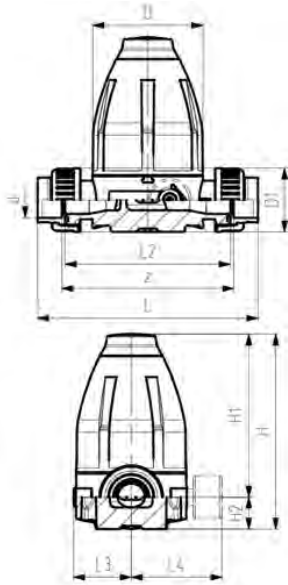
**Type 586 Pressure Retaining Valve SYGEF Standard PVDF Unions with fusion sockets metric Without manometer**

**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request

Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings FKM Part No.	weight (kg)
20	15	10	<b>185 586 112</b>	0.780
25	20	10	<b>185 586 113</b>	1.670
32	25	10	<b>185 586 114</b>	1.720
40	32	10	<b>185 586 115</b>	4.700
50	40	10	<b>185 586 116</b>	4.790
63	50	10	<b>185 586 117</b>	5.090

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	z (mm)	closest inch (inch)
20	79	132	111	21	12	158	120	42	M6	130	½
25	100	177	148	29	14	192	150	53	M6	160	¾
32	100	177	148	29	14	196	150	53	M6	160	1
40	147	251	207	44	21	255	205	76	M8	215	1 ¼
50	147	251	207	44	21	261	205	76	M8	215	1 ½
63	147	251	207	44	21	269	205	76	M8	215	2

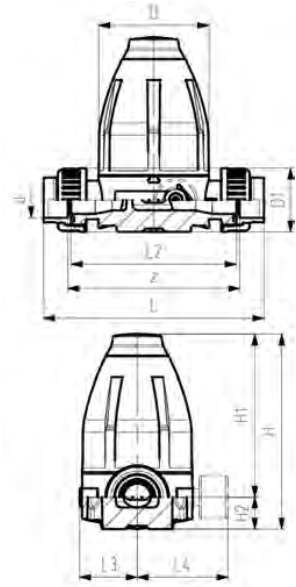
**Type 586 Pressure Retaining Valve SYGEF Standard PVDF Unions with butt fusion spigots metric Without manometer**



**Model:**

- Diaphragm PTFE/EPDM
- Integrated stainless steel mounting inserts
- 0.5-9.0 bar (7-130 psi)

0.3-3.0 bar (4-44 psi) on request  
Manometer on request



d (mm)	DN (mm)	PN (bar)	O-rings Part No.	FKM weight (kg)
20	15	10	<b>185 586 512</b>	0.820
25	20	10	<b>185 586 513</b>	1.710
32	25	10	<b>185 586 514</b>	1.760
40	32	10	<b>185 586 515</b>	4.740
50	40	10	<b>185 586 516</b>	4.830
63	50	10	<b>185 586 517</b>	5.130

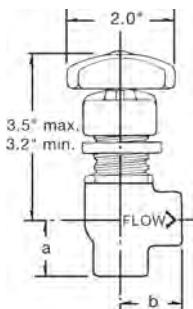
d (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	M	z (mm)	closest inch (inch)
20	79	43	132	111	21	12	226	120	42	M6	130	½
25	100	53	177	148	29	14	262	150	53	M6	160	¾
32	100	60	177	148	29	14	268	150	53	M6	160	1
40	147	74	251	207	44	21	329	205	76	M8	215	1 ¼
50	147	82	251	207	44	21	335	205	76	M8	215	1 ½
63	147	100	251	207	44	21	341	205	76	M8	215	2

B

**Needle Valve - Type 522  
Angle Body, Female NPT**



Size	PN (bar)	Part No.	SP weight (lb)	a (mm)	b (mm)
¼	10	<b>155 522 579</b>	1	0.309	25
½	10	<b>155 522 581</b>	1	0.309	28

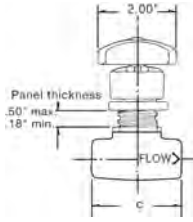


B

**Needle Valve - Type 522**  
**Globe Body, Female NPT**



Size	PN	Part No.	SP	weight	c
	(bar)			(lb)	(mm)
¼	10	<b>155 522 554</b>	1	0.309	58
½	10	<b>155 522 556</b>	1	0.309	65



# Miscellaneous

B



**T523, Low Profile Gauge Isolator Without Gauge**

Size	Part No.	weight (lb)
1/4" x 1/4"	* 155 523 533	0.540
1/4" FNPT x 1/2" FNPT	* 155 523 535	0.562

B



**T523, Low Profile Gauge Isolator With Gauge, Scale 0-160 PSI**

Size	Part No.	weight (lb)
1/4" x 1/4"	* 155 523 537	1.393
1/4" FNPT x 1/2" FNPT	* 155 523 539	0.705

A



**Pure Fluid Dispenser**

Size	Part No.	weight (lb)
3/8" NPT	* 155 524 580	1.190